

# COMPUTING RESEARCH NEWS

A Publication of the Computing Research Association

January 2002

Vol. 14/No. 1

## Congressional Support for Research Appears Strong, But Work Continues

By Peter Harsha

Support for basic research and information technology remains strong in Congress and the Administration, judging by the healthy increases provided to the National Science Foundation's annual appropriation. NSF received the largest increase of any agency in the FY 2002 VA-HUD-Independent Agencies appropriations bill, an increase of 8.4 percent (\$372 million) over its FY 2001 appropriation, including an increase of nearly 8 percent in the Computer and Information Science and Engineering Directorate. NSF's Information Technology Research program received a specific increase of \$25 million. Table 1 provides a detailed breakdown of the NSF appropriation.

The increase at NSF is especially significant in light of the much smaller increase of 1.3 percent (\$56 million) first proposed in the President's budget submission last March. That number, the first indication of the new Administration's

support for federal science programs, raised concerns throughout the scientific community that federal investment in basic research would not be a priority.

Those concerns have been alleviated somewhat by the President's willingness to sign the measure, and by recent comments by the President's Budget Director on the need to support NSF despite future budget deficits. Outlining the need for greater fiscal discipline in future federal budgets in a speech before the National Press Club in late November, Office of Management and Budget Director Mitch Daniels praised NSF as an example of a highly effective, efficiently managed agency that deserves continued support.

"[NSF is] one of the true centers of excellence in this government" for directing more than 95 percent of its funds in a merit-based fashion "directly to researchers pursuing the frontiers of science with very low overhead costs," he said. "Programs

Table 1. FY 2002 National Science Foundation Appropriations  
(in millions of dollars)

	FY01	Request	House Passed	Senate Passed	FINAL	% Increase over FY01
Biological Sciences	485.4	483.1	529	500.6	509	4.9
Computer & Information S&E	477.9	470.4	521	523	515.8	7.9
Engineering	430.8	431	469	454	467.5	8.5
Geosciences	562.2	558.5	613	570	610.7	8.6
Mathematical and Physical Sciences	850.8	863.6	927	897.5	922.2	8.4
Social Behavioral and Economic Sciences	164.4	163.2	179	165.2	168.9	2.7
Office of Polar Programs	273.3	276.6	299	281.6	297.8	9.0
Integrative Activities	97.8	80.6	106	115.6	106.5	8.9
Research and Related Activities	3342.6	3326.9	3642.3	3514.4	3598.3	7.6
Education and Human Resources	785.6	872.4	886	872.4	875	11.4
Major Research Equipment	121.3	96.3	135.3	108.8	138.8	14.4
Salaries and Expenses	160.5	170.4	170.4	170.4	170.4	6.2
Inspector General	6.2	6.8	6.8	6.8	6.8	9.7
<b>NSF Total</b>	<b>4416.4</b>	<b>4472.5</b>	<b>4840.1</b>	<b>4672.8</b>	<b>4789.3</b>	<b>8.4</b>

like this...deserve to be singled out, deserve to be fortified and strengthened."

These comments come as the Administration and Congress continue to seek ways to address national security needs, stimulate the

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Program—  
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## CRA Announces a Special Conference on Future "Grand Challenge" Problems in Computer Science and Engineering

Dates: June 23-26, 2002  
Location: Airlie House,  
Warrenton, Virginia

Exciting challenges characterized computer science and engineering in the 60s and 70s—consider the advances in programming languages and compilers, models of computation, graphics, timesharing, formal semantics and program verification, and multiprocessor systems. It could be called the "golden age" of computer science.

Some individuals believe that current computer science and engineering research has become incremental, and somehow "less important." This view is not consistent with the continued advancement in selected sub-areas and the immense, fast-changing impact of information technology on society and the economy.

But what *are* the challenges that drive the field?

The Computing Research Association is organizing a special conference—unlike the typical technical specialty conference—to address the question: *What are the "grand challenge" problems in computer science and engineering?* The conference organizers believe that deep and exciting challenges remain. The purpose of the proposed conference is to provoke "out-of-the-box" thinking and to articulate some of those challenges, thus hastening the next "golden age." This conference is an experiment; it is a prototype for a series of conferences on grand research challenges in computer science and engineering.

Because computer science and engineering is so broad in scope and we want some in-depth focus for the first conference, the organizing

committee has selected *systems* as an overall theme. It too is broad, but not so broad as to encompass all of computer science and engineering. Early computers were not systems; they were used to compute single calculations such as ballistics table values. It was a dramatic step forward when operating systems, timesharing, and distributed computing arose—all advances in system design.

Miniaturization and the advent of micro-electro-mechanical devices and the onslaught of nanotechnology will make it possible to embed single or multiple devices in essentially any and all inanimate objects to make them animate. Wireless communications will knit them together. Today's inanimate house or office will become an animate system that will react to the needs of human beings.

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## Expanding the Pipeline

## Coalition to Diversify Computing Launches Tapia Celebration of Diversity in Computing Series

By Valerie Taylor

On October 18-20, 2001 in Houston, Texas, the Coalition to Diversify Computing (CDC) held its inaugural celebration of diversity in computing. The Richard Tapia Celebration of Diversity in Computing Symposium (<http://www.sdsc.edu/Tapia2001/>) was sponsored by the Association of Computing Machinery (ACM).

Designed to celebrate the technical contributions and career interests of diverse people in computing fields, the symposium offered a mix of technical and non-technical talks and panels, a poster session, and a unique awards banquet. The symposium program was designed around the theme of "Expanding Horizons," reflecting a focus on access to powerful knowledge from diverse researchers in computing, expanding the community of people in the field of computing, and the sharing of knowledge between the different disciplines of computing.

The celebration honored Dr. Richard A. Tapia, a mathematician and professor in the Computational and Applied Mathematics Department at Rice University in Houston. Dr. Tapia is a member of the National Academy of Engineering, the first recipient of the A. Nico Habermann Award from the Computing Research Association, and a member of the National Science Board; he is equally well known for his commitment to educational equity, mentoring, and student success.

In naming the symposium, only one name came to mind to all CDC members, simultaneously—Richard Tapia. CDC members discussed Richard Tapia's significant impact on his/her career, either as a role model, mentor, colleague, or very dear friend. His impact was felt throughout the symposium, where hundreds of people shared their impressions of Tapia's influence on their lives; newcomers were able to get to know Richard Tapia and absorb his great energy and enthusiasm about increasing diversity in computing.

Tapia's keynote address, "Diversifying Computing: Its Contradictions, Challenges, and Successes," was a candid assessment of current educational policy and reform initiatives that urged attendees to close the education gap, engage minority youth in the world of science, and hold high the bar of academic excellence. Jackie McNab of KDH Science gave an invited plenary talk entitled "Breaking through Barriers: A Journey to Success." McNab's talk, which was targeted to the student attendees, provided examples of questions to ask and standards to use to "think outside the box," aim high, and capitalize on one's unique gifts. She provided proof of her methods with her own successes and challenges.

The symposium had a number of technical sessions on a broad range of topics from geographic information systems (GIS) to culture-specific approaches to e-learning. Speakers included David Nealey, EI Technologies; Ken Kennedy, Rice University; Sandra Baylor, IBM; Valerie Taylor, Northwestern University; Charles Isbell, AT&T Research Laboratories; Nate Dean, Rice University; Barbara Simons, retired, IBM Research; Oscar Garcia, Wright State University; Juan Gilbert, Auburn University; Vipin Kumar, University of Minnesota; Juan Meza, Sandia National Laboratories; and Agnes Chan, Northeastern University.

In addition to the technical sessions, the Tapia Symposium 2001 offered a number of student-oriented panels on the graduate school experience, strategies for finishing the Ph.D., and the importance of mentoring and role models.

Poster presentations at the symposium provided an opportunity for students and researchers to describe their research results and experiences directly to the symposium attendees. The posters demonstrated the growing interdisciplinary nature of computing, with the prize for best poster overall going to a team led by Jenice Rankins, a nutritionist at the Florida State University. Her team, which included Juan E. Gilbert, Auburn University; Perry Brown, Florida A&M University; Carlise A.R. Pemberton, University of the West Indies, St. Augustine, Trinidad; and Charles J. Kacmar, Ernest L. McDuffie, Florida State University, won for its presentation of "I-CAN: An Interactive Computer-Assisted Network for Bridging the Chronic Disease Divide between African Americans and Caucasians."

The best student poster prize was split between Carmeliza Navasca and Arthur J. Krener, University of California, Davis, for their poster, "Local Solutions of the Dynamics Programming Equations in Discrete-Time," and Diane C. Jamrog, Rice University; George N. Phillips, Jr., University of Wisconsin, Madison; and Richard A. Tapia and Yin Zhang, Rice University, for "A New Global Optimization Strategy for the Molecular Replacement Problem."

A highlight of the symposium was a banquet honoring Richard Tapia for his educational outreach programs at Rice University, his success in producing women and underrepresented minority Ph.D.s, and his commitment to excellence in science, math, and engineering education. Other facets of his life were recognized as well, including his roles as a husband, father, music lover, and vintage car enthusiast. Tapia's response held a powerful message for the attendees:

"I feel a deep sense of gratitude that a symposium addressing a matter of such national importance carries my name. I want this symposium to serve as a symbol, and also as proof that we, as members of underrepresented groups, can and must contribute to science and technology at the highest levels."

Speakers at the banquet included Malcom Gillis, the President of Rice University; Neal Lane, former director of the White House Office of Science and Technology Policy; current and former students; car-club friends; and his wife, Jean Tapia. Neal Lane surprised Richard Tapia with a congratulatory letter from former President William Clinton. More than 300 people attended the dinner and program, which also honored Tapia's Texas and Mexican roots with mariachi music and cultural dancing.

After an introduction of the awardee by Roscoe Giles of Boston University, Richard Tapia himself presented the inaugural "Richard A. Tapia Achievement Award for Scientific Scholarship, Civic Science, and Diversifying Computing." This award is intended to honor a person who exemplifies Tapia's work as a "civic scientist"—a scientist who recognizes that at the center of the complex technological and scientific world are people—and recognizes a scientist who has demonstrated extraordinary leadership in increasing the participation of underrepresented groups in the sciences. The 2001 Award went to Dr. Bryant York of Portland State University, who is a co-founder of the Institute for African American E-Culture and was the 1998 recipient of CRA's A. Nico Habermann award for outstanding contributions to underrepresented groups within the computing community.

The Tapia Symposium 2001 ended with a "Town Hall Meeting." Attendees were able to give immediate feedback to the symposium organizers and make suggestions to Juan Meza of Sandia National Laboratories and Bryant York, the general co-chairs of the Richard Tapia Celebration of Diversity in Computing Conference 2003.

The symposium was a great success, as indicated by the conference evaluation and quotes from participants. More than 96 percent of the participants found the symposium intellectually stimulating. Further, 76 percent of the participants felt the symposium increased their desire to conduct research in the areas of science, mathematics, engineering, and technology; and 61 percent felt motivated to conduct interdisciplinary research as a result of the symposium. Some attendees expressed their views of the symposium:

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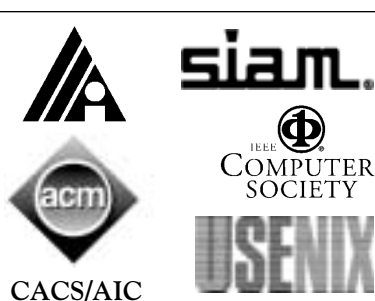
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# Outstanding Undergraduate Award Winners Announced

The Computing Research Association honors the recipients of the CRA Outstanding Undergraduate Awards competition for 2002, sponsored this year by Mitsubishi Electric Research Labs.

**Allegra Angus** from Cornell University received the Outstanding Female Undergraduate award. **Adam Stubblefield**, Rice University, received the Outstanding Male Undergraduate award. **Alexander Fabrikant**, UC Berkeley, was named runner-up for the male award. **Sara Su**, University of Washington, was the runner-up for the female award.

## About the Winners

**Allegra Angus** is a senior at Cornell University. She will receive Bachelor's degrees in Computer Science and Mathematics in January 2002.

Allegra's research is in program logic and semantics. She has helped develop techniques that enable



one to prove equivalence of program schemes by converting the schemes to algebraic expressions and then proving their equivalence by manipulating equations. She has co-authored a paper describing the technique, and is now building an automated equational verification tool that will be useful for a variety of verification tasks.

Allegra has had summer internships at Intel (twice) and Xerox (twice). She helped develop a non-programming introductory course in computer science at Cornell, and she performs with the Cornell symphony, chamber orchestra, and women's chorus. Allegra holds an Intel Women in Science and Engineering Scholarship.

**Adam Stubblefield** is in his third year of studies at Rice University. He will receive a B.A. in Mathematics

in May 2002.

Adam has done significant research in computer security and applied cryptography. For example, this past summer he developed the first attack on a wireless computing standard, the Wireless Equivalent Privacy (WEP) protocol; his results were reported on by CNN and *The New York Times*, among others. Adam has co-authored six papers; one received the best paper award at the Network and Distributed Systems Symposium in February 2001. He will be on the program committee of the next USENIX Security Symposium.

Adam has been a teaching assistant for three courses at Rice. He has also been an intern at Wang, Xerox PARC, and AT&T Labs. He holds a USENIX Scholars Fellowship and is a Rice Undergraduate Scholar.

**Alexander Fabrikant** (Runner-Up) is a senior at the University of California, Berkeley. He will receive a B.S. in Electrical Engineering and Computer Science and a B.A. in Mathematics and Linguistics in May 2002.

Alex is interested in theoretical aspects of computer science, especially algorithms. He has worked on three different projects: quantum computing heuristics for graph coloring, statistical analyses and string indexing methods for comparative genomic analysis, and, most recently, asymptotic bounds for problems relating to models of the graph structure of the Internet. He has co-authored papers on each topic and has developed software implementations of his results.



Alex has been a summer intern at Xerox PARC and a math tutor, course reader, and teaching assistant at Berkeley. He has been an officer for two years in the Berkeley chapter of Eta Kappa Nu, the national EECS honor society, and has also been active in community service.

**Sara Su** (Runner-Up) is a senior at the University of Washington. She will receive a Bachelor's degree in Computer Engineering in June 2002.

Sara has contributed to three quite different fields.

During a summer internship at Cray, Inc., she developed software modules for the Tera multithreaded architecture. She has developed tools to automate the production of course materials as part of a Tutorials Video Instruction project to support distance education. Most recently she has developed techniques for artistic rendering and handwriting synthesis during an internship at Microsoft Research, China; she has co-authored two papers describing these results.

Sara is an officer of the ACM student chapter at Washington, active in departmental outreach efforts, and a former officer of the Washington chapter of Eta Kappa Nu, the EECS honor society. She has received numerous scholarships and academic honors.



*This year's selection committee included Gregory Andrews, University of Arizona (Chair); Lori Clarke, University of Massachusetts, Amherst; and Michael Scott, University of Rochester. ■*

## Outstanding Undergraduate Award, Honorable Mention

Frank Apap, Columbia University  
 Nathaniel Ayewah, Southern Methodist University  
 Bachir Babale, University of Oklahoma  
 Nate Chambers, University of Rochester  
 Andrew Chatham, Duke University  
 Emily Chung, UC Berkeley  
 Arel Cordero, University of Oregon  
 Jon Eddy, Harvard University  
 Brian Gaeke, UC Berkeley  
 Shirley Gaw, University of Washington  
 Philip Godfrey, Carnegie Mellon University  
 Mark Hancock, Simon Fraser University  
 Andrew Honig, Columbia University  
 Bradford Hovinen, University of Delaware  
 Chand John, University of Texas, Austin  
 Andrew Ko, Oregon State University  
 Mark Kwan, University of British Columbia  
 Delwin Lee, University of Texas, Austin  
 Harry Li, Brown University  
 Haining Liang, University of Western Ontario  
 Steven Marx, University of Rochester  
 Jennifer McDonald, Northeastern University  
 Leah Miller, Carnegie Mellon University  
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## Software Licensing: Stanford's Approach

By Katharine Ku

### The Intellectual Property Conundrum of Software

Universities have been wrestling with the intellectual property conundrum of software. Is software more like a textbook, where the copyright is traditionally owned by the faculty author? Or is software more like an invention, whose idea is protectable by a patent? University faculty are not of like mind. Many electrical engineers who write code feel that software is just another means of performing a particular function, an extension of hardware. Many computer scientists think of code as a form of personal expression, much like words are to a writer. All would

probably agree that the line between patents and copyrights is blurry when it comes to software.

At Stanford University, we "cut the baby in half" by saying that patentable software falls under Stanford's Patent Policy and textbook-like software falls under Stanford's Copyright Policy. In addition, if software has been developed with more than incidental use of university facilities (as stated in the Patent Policy), or with significant use of university resources (as in the Copyright Policy), or in the course of a research contract or grant from an external sponsor, the software will belong to Stanford. The licensing office must deal with interpretations

of the policies in the individual context of the particular technology, using a reasonable and commonsense approach to decide whether it falls under the Patent Policy or the Copyright Policy.

### How Is Ownership Decided?

The Google and Yahoo! stories illustrate the application of Stanford's Patent and Copyright policies to real-life examples. Jerry Yang and David Filo disclosed their software to Stanford, requesting that Stanford confirm that Stanford did

Software Licensing  
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# 2000-2001 Taulbee Survey

## 2000-2001 Preliminary Taulbee Data on Faculty Salaries

By Randy Bryant and Moshe Y. Vardi

Each September the Computing Research Association surveys academic departments in the United States and Canada that offer the Ph.D. in computer science or computer engineering. The annual CRA Taulbee Survey collects data on enrollment in the undergraduate, master's, and Ph.D. computing programs; employment of Ph.D. graduates of these programs; and number and salaries of faculty in these programs.

This is the 31st year that CRA has tracked the production and employment of Ph.Ds in the computer science field. For the past 15 years, computer engineering data have also been incorporated into the survey. The traditionally high response rate to the survey makes the data especially useful; the data are used widely, not only by CRA's members but also by other organizations and institutions.

Each January, as a service to our members, CRA publishes a preliminary report of the survey's faculty salary data. We believe these preliminary results comprise enough data to be valuable and valid as tools for planning for the spring faculty-recruiting season. The full survey results—including updated salary data; enrollment, production, and employment data; and trend

analyses—will appear in the March 2002 issue of *CRN*.

Tables 1 through 9 show the results in a format comparable to that used in previous CRA surveys. We have included the data for computer engineering departments (Table 6), although the low return rate (9 responses of 27) reduces their reliability. In the tables that group the departments by rank, the groupings are based on the 1993 National Research Council ranking of research-doctorate programs in the United States, released in 1995 (<http://cra.org/statistics/nrcstudy2/>).

Each department was asked to report the minimum, mean, and maximum salary for each rank (full, associate, and assistant professors and non-tenure-track teaching faculty) and the number of persons at each rank. The salaries are those in effect on January 1, 2002. For U.S. departments, nine-month salaries are reported in U.S. dollars. For Canadian departments, twelve-month salaries are reported in Canadian dollars. Respondents were asked to include salary supplements such as salary monies from endowed positions.

The minimum and maximum of the reported salary minima (and maxima) is self-explanatory. The range of salaries in a given rank among departments that reported

data for that rank is the interval ["minimum of the minima," "maximum of the maxima"]. The mean of the reported salary minima (maxima) in a given rank is computed by summing the departmental reported minimum (maximum) and dividing by the number of departments reporting data at that rank. The average salary at each rank is computed by summing the individual means reported at each rank and dividing by the number of departments reporting at that rank.

For comparison with last year's data, Table 9 shows, separately, the overall average computer science salaries for U.S. departments and for Canadian departments. The preliminary data from 2000 are those published in the January 2001 *CRN*, and the final data from 2000 are those published in the March 2001 *CRN*. When compared with the final 1999-2000 data, the U.S. average salaries have increased by:

- 2.8 percent (7.0 last year) for non-tenure-track teaching faculty;
- 6.9 percent (7.0 last year) for assistant professors;
- 6.0 percent (7.0 last year) for associate professors; and
- 5.8 percent (4.0 last year) for full professors.

Canadian average salaries have increased by:

- 18.3 percent (4.0 last year) for non-tenure-track teaching faculty;
- 5.5 percent (8.0 last year) for assistant professors;
- 3 percent (7.0 last year) for associate professors; and
- 4.0 percent (3.0 last year) for full professors.

The large (18.3 percent) increase for non-tenure-track teaching faculty in Canada is due in part to one relatively high salary reported. If that figure is excluded from the calculation, the increase is still substantial at 12.3 percent.

Tables 2, 3, and 4 report the data for the same set of schools reporting last year. In the group of U.S. computer science departments ranked 1 through 36, the average salaries for tenure-track faculty increases ranged from a low of 2.4 percent (associates in departments ranked 25-36) to a high of 9.8 percent (associates in those ranked 13-24). The average increase was 5.8 percent.

Randy Bryant (*Carnegie Mellon University*) and Moshe Y. Vardi (*Rice University*) co-chair CRA's Taulbee Survey Committee. ■

**Table 1. Nine-month Salaries, 128 Responses of 166 US CS Computer Science Departments**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	556	\$24,000	\$48,567	\$96,084	\$56,368	\$35,000	\$66,394	\$130,000
Assistant	651	\$49,500	\$69,202	\$86,829	\$73,367	\$57,672	\$77,161	\$116,390
Associate	696	\$49,936	\$74,255	\$117,000	\$81,645	\$67,064	\$90,644	\$141,500
Full	997	\$49,500	\$85,040	\$139,000	\$105,496	\$82,225	\$137,951	\$264,892

**Table 2. Nine-month Salaries, 11 Responses of 12 US CS Computer Science Departments Ranked 1-12**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	69	\$31,500	\$56,384	\$96,084	\$68,852	\$64,800	\$84,111	\$100,404
Assistant	105	\$49,500	\$72,419	\$78,500	\$78,250	\$78,304	\$83,045	\$88,000
Associate	91	\$60,825	\$81,462	\$102,800	\$88,232	\$77,700	\$96,265	\$120,000
Full	216	\$49,500	\$88,106	\$106,400	\$119,665	\$138,000	\$166,364	\$188,800

**Table 3. Nine-month Salaries, 12 Responses of 12 US Computer Science Departments Ranked 13-24**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	54	\$46,542	\$59,936	\$81,840	\$69,019	\$61,000	\$80,233	\$130,000
Assistant	76	\$69,200	\$75,956	\$84,000	\$80,324	\$78,381	\$84,748	\$93,600
Associate	63	\$74,700	\$84,601	\$95,000	\$91,756	\$83,000	\$99,231	\$141,500
Full	195	\$74,590	\$89,190	\$108,100	\$121,580	\$147,500	\$174,470	\$264,892

**Table 4. Nine-month Salaries, 12 Responses of 12 US Computer Science Departments Ranked 25-36**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	47	\$38,480	\$52,520	\$73,712	\$59,901	\$47,500	\$71,705	\$129,150
Assistant	84	\$64,400	\$71,690	\$80,000	\$75,051	\$68,000	\$78,555	\$87,188
Associate	87	\$62,963	\$77,809	\$86,536	\$84,456	\$83,600	\$94,139	\$112,500
Full	146	\$68,199	\$86,729	\$99,350	\$114,218	\$109,200	\$161,186	\$245,575

**Table 5. Nine-month Salaries, 93 Responses of 130 US Computer Science Departments Ranked Higher than 36 or Unranked**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	393	\$24,000	\$45,249	\$80,000	\$52,019	\$34,901	\$60,495	\$114,480
Assistant	496	\$45,996	\$67,228	\$86,829	\$71,098	\$50,004	\$74,774	\$116,390
Associate	591	\$45,624	\$71,149	\$117,000	\$78,753	\$67,064	\$87,812	\$145,750
Full	640	\$59,660	\$84,680	\$139,000	\$100,951	\$82,225	\$127,139	\$194,893

**Table 6. Nine-month Salaries, 9 Responses of 27 US Computer Engineering Departments**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	11	\$35,000	\$54,247	\$67,194	\$63,778	\$50,688	\$74,253	\$92,700
Assistant	61	\$55,000	\$68,058	\$80,100	\$72,268	\$68,000	\$75,984	\$82,500
Associate	69	\$60,200	\$70,622	\$79,006	\$75,446	\$60,200	\$82,972	\$98,000
Full	117	\$70,168	\$84,160	\$95,000	\$97,170	\$80,220	\$130,181	\$180,000

**Table 7. Twelve-month Salaries, 19 Responses of 23 Canadian Computer Science Departments (Canadian Dollars)**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Non-Tenure Teaching Faculty	62	\$44,097	\$58,404	\$108,000	\$62,874	\$46,809	\$68,184	\$108,000
Assistant	180	\$54,019	\$68,078	\$95,000	\$73,898	\$57,368	\$81,167	\$117,000
Associate	190	\$60,319	\$75,130	\$111,000	\$85,560	\$78,684	\$95,651	\$125,000
Full	272	\$50,211	\$84,454	\$109,000	\$102,783	\$91,557	\$127,429	\$178,426

**Table 8. Nine-month Salaries for New Ph.Ds, Responding US CS and CE Departments**

Faculty Rank	Number of Faculty	Reported Salary Minimum			Average of all Salaries	Reported Salary Maximum		
		Minimum	Mean	Maximum		Minimum	Mean	Maximum
Tenure-Track	99	\$45,996	\$73,573	\$85,000	\$74,178	\$45,996	\$74,868	\$86,000
Researcher	8	\$27,000	\$53,830	\$93,000	\$54,187	\$27,000	\$54,544	\$93,000
Non-Tenure Teaching Faculty	9	\$35,000	\$51,741	\$63,000	\$52,416	\$35,000	\$54,967	\$72,785
Postdoc	22	\$28,500	\$46,475	\$60,000	\$47,776	\$28,500	\$49,665	\$60,000

**Table 9. Average Salary Comparison with 2000 Survey**

	US CS Departments			Canadian CS Departments		
	Preliminary 2000	Final 2000	Preliminary 2001	Preliminary 2000	Final 2000	Preliminary 2001
No. Reporting/Surveyed	136 / 163	142 / 163	128 / 166	18 / 23	19 / 23	19 / 23
Non-Tenure Teaching	\$52,304	\$51,909	\$53,368	\$51,037	\$53,162	\$62,874
Assistant	\$68,671	\$68,628	\$73,367	\$68,134	\$70,056	\$73,898
Associate	\$77,156	\$76,997	\$81,645	\$81,021	\$82,874	\$85,560
Full	\$99,811	\$99,690	\$105,496	\$96,535	\$98,844	\$102,783

**Congressional Support  
from Page 1**

economy out of its recent downturn, and continue to provide funding for federal research efforts in the wake of the events of September 11. As this issue of CRN goes to press, it is not clear how these apparently conflicting goals would be addressed, or how IT funding will fare across all federal agencies.

More than two months into the new fiscal year, Congress has yet to complete work on all 13 appropriations bills necessary to fund federal government activities each year. At press time, five appropriations bills remain uncompleted, including the FY 2002 Defense Appropriations, which contains important information technology research and development funding at the Defense Advanced Research Projects Agency.

The House version of the Defense Appropriations bill raised significant concerns within the IT community because of a \$60 million cut to DARPA's Computing Systems and Communications Technology account. Research funded by this account includes development of faster machine translation of foreign languages, operating systems better able to protect themselves from threats, and new computing architectures needed for cryptanalysis, design of stealthy systems, and improved aircraft and ship manufacturing techniques. House staff defended the cut to this \$382 million account as necessary to provide funding elsewhere in the bill for projects of "significant Member interest."

The Senate version of the bill does not include the funding cut, instead providing funding to the account at the level requested by the Administration. The differences between the two bills will have to be reconciled in a compromise measure, and at press time there was no clear indication which side would prevail. CRA joined a coalition of groups in expressing support for the Senate numbers.

A final breakdown of all of the FY 2002 appropriation levels will be posted to the CRA Government Affairs web site (<http://www.cra.org/govaffairs>) as soon as the numbers are available.

House authorizers have also been at work on new IT research and cyber security legislation. The House Science Committee has introduced legislation that would reauthorize programs under the High Performance Computing Act. The legislation, HR 3400, is similar in scope to a measure introduced by former Science Committee Chairman F. James Sensenbrenner (R-WI) last Congress. That bill (HR 2086, the Networking and Information Technology Research and Development Act) passed the House with considerable support, but got caught up in a dispute between Sensenbrenner and the Senate Commerce, Science and Transportation Committee, which failed to move the measure forward. The current bill, introduced by Science Subcommittee on Research

**Table 2. Networking and Information Technology Research Advancement Act (as introduced) (in millions of dollars)**

Agency	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	TOTAL
NSF	704	774	851	937	1,030	\$4,296
NASA	199	219	240	265	292	\$1,215
Dept. of Energy	193	212	234	258	283	\$1,180
NIST	24	27	29	32	35	\$147
NOAA	22	24	26	29	32	\$133
EPA	4	4.4	4.8	5.3	5.8	\$24.3
NAS Benchmarking Survey	85					
<b>TOTAL</b>	<b>1,146.85</b>	<b>1,260</b>	<b>1,385</b>	<b>1,526</b>	<b>1,678</b>	<b>\$6,995.85</b>

Chairman Nick Smith (R-MI) and co-sponsored by Research Subcommittee Ranking Member Eddie Bernice Johnson (D-TX), faces a much smoother path to passage.

The bill contains a total of nearly \$7 billion in authorizations over five years at the six civilian research and development agencies under the Science Committee's jurisdiction. Table 2 details the funding authorizations at each agency.

Science Committee Chairman Sherrold Boehlert (R-NY) has also drafted legislation aimed at bolstering computer and network security research at NSF and the National Institute for Standards and Technology. The bill will likely include new authorizations for additional computer and network security grants at NSF and NIST, new graduate fellowship programs, and new multi-disciplinary university research centers.

Both bills are tentatively slated for committee action in early December. Full details will also be made available on the CRA Government Affairs website.

In the coming months, CRA Government Affairs seeks your help

in making the case for continued support of IT research to Congress and the Administration. One of the easiest and most effective ways of doing this is to make Members of Congress aware of the IT research being performed by their constituents and the institutions they represent. CRA's Government Affairs Committee and staff want to help spread the word.

If your institution receives any recognition or press coverage related to the IT research you perform, please drop a note to your institution's government affairs representative, and to CRA ([harsha@cra.org](mailto:harsha@cra.org)). We will be happy to pass along the good news to your representatives in Congress, or to provide you with the contact information to make the connection yourself. Also, please take a moment to join the CRA Advocacy Network (<http://www.cra.org/govaffairs/advocacy/cran>), an electronic mailing list that delivers timely information about important developments in federal IT policy and key advocacy opportunities. ■

## Nominees Sought for CRA Board

The Computing Research Association seeks your help in suggesting nominations for its Board of Directors. The deadline for receipt of nominations is **January 18, 2002**.

Each spring CRA's member organizations elect about one-third of the association's board members to three-year terms. Candidates are not required to be affiliated with CRA member organizations. It is important that the CRA Board represents the interests of the entire computing research community, and it is CRA's policy to solicit a broad range of candidates. From the nominations received, the elections committee selects the candidates whose names will appear on the ballot.

In past elections there has often been a shortage of industry nominations. For that reason, the committee particularly encourages the nomination of candidates from the industrial sector.

The CRA board is a working board, and all members are expected to actively participate. Although CRA has a small professional staff, board members have detailed involvement in all major projects. Recent and current projects include:

- Planning the biennial CRA Conference at Snowbird.
- Conducting the annual CRA Taulbee Survey.
- Conducting other surveys (e.g., industrial lab salaries; departmental budgets, space, personnel).
- Developing workshops on critical policy issues for computing research.
- Planning academic and industrial careers and effective teaching workshops.
- Increasing the participation of women and minorities in computing research, with the help of National Science Foundation grants.

In addition to actively participating in board projects, board members are asked to attend two board meetings per year and pay their travel costs to the meetings.

Further information on CRA and its activities is available on the Web at <http://www.cra.org> or by e-mailing [elections@cra.org](mailto:elections@cra.org).

Please contact the person you are nominating before submitting his or her name to ensure that the nominee is willing to stand for election to the board. Those who are nominated are required to write a brief (not to exceed 100 words) statement supporting their nominations.

To receive a nomination form, send an e-mail request to [elections@cra.org](mailto:elections@cra.org). Nominations must reach CRA by **January 18, 2002**. ■

## Using History to Improve Undergraduate Computer Science Teaching Second Workshop—April 26-28, 2002 University of Minnesota, Minneapolis, MN

*Organized by the Computing Research Association with support from the National Science Foundation's Directorate on Education and Human Resources. Limited scholarships available to cover room and board.*

*This workshop neither duplicates nor relies on the material covered in the first workshop, which was held in Amherst, MA in August 2001. All computer science faculty members who teach undergraduates are welcome to attend.*

### Friday, April 26 (9:00AM to 4:30PM)

William Aspray—Opening Remarks  
Steve Russ—Using History in the Computer Science Logic Course  
Gordon Davies—Teaching Object-Oriented Programming Using Historical Materials  
Arthur Norberg—Using History to Prepare Students for their Careers  
J.A.N. Lee—Historical Materials in the Virginia Tech Professionalism Course  
Elizabeth Kaplan—Tour of the Charles Babbage Institute

### Saturday, April 27 (9:00AM to 4:30PM)

Steve Russ—The History of Computing Course in the CS Curriculum  
John Impagliazzo—Using History in the Computer Architecture Course  
James La Vita—Invention Myths in the Classroom  
Janet Abbate—Including Women in Computer Science: How History Can Help  
Michael Williams—Using Artifacts and Simulated Artifacts in Teaching CS Discussion Groups

### Sunday, April 28 (9:00AM to 2:00PM)

Thomas Bergin—AU/Sloan Foundation Software History Website  
Atsushi Akera—The IT Program at Rensselaer Polytechnic Institute  
Additional Speakers TBA

See: <http://www.cra.org/history.workshop/> ■

### "Grand Challenge" Problems from Page 1

There are immense challenges to be overcome as distributed computer systems are developed to support and amplify the intellectual activity of mankind. For these reasons and more, we have chosen *systems* as our first general theme. The research community is only beginning to come to terms with what these new research agendas and research paradigms might be—and this would be the main thrust of the conference.

The conference will be held in the executive retreat setting of Airlie House in Warrenton, Virginia (30 miles from Washington-Dulles airport). In addition to the formal sessions, two afternoons will be set aside for free time so that participants may continue discussion of the material in small, informal groups as they hike or bike in a pleasant outdoors setting.

CRA is limiting attendance to no more than 50 people. The typical attendee is someone who has shown evidence of an ability to think beyond an established research agenda. While there will be some systems specialists in attendance, this is not a conference for systems specialists. All major computing research areas will be represented.

We seek varying perspectives on what research directions are important for the future. Attendees will include a balance of researchers at all stages of their careers. An effort will

be made to make the group diverse in other ways as well: kinds of departments (computer science, computer engineering, computational science, information science) and institutions (research universities, industrial research labs, etc.) represented, gender and ethnicity of participants, ties to other academic disciplines and application areas, and so on.

**Application process:** Prospective attendees are invited to submit a two-page (or less) statement of one to three examples of a "grand challenge" problem in the systems area. The organizing committee will select attendees based on these statements.

If interested, please submit your statement by February 15, 2002 to William Aspray <aspray@cra.org>. Please include a one-page biographical statement. You might include information about your education and work experience, as well as a description of cutting-edge hardware or software you have built and past demonstrations of your ability to think beyond the established research agenda.

**Cost:** CRA will provide, perhaps with external support, all meals and meeting facilities at no cost to the participants. CRA has applied to the National Science Foundation for travel and lodging support to cover some, but not all, participants.

Please indicate:

1. Whether you would like to be considered for travel and lodging support if it becomes available.

2. Whether you will be able to attend if that travel and lodging support is not available.

#### Organizing Committee:

Anita Jones, Professor, University of Virginia [Organizing Committee Chair]

William Aspray, Executive Director, Computing Research Association

David Clark, Senior Research Scientist, MIT; and Chair, National Research Council's Computer Science and Telecommunications Board

Ambuj Goyal\*, Vice President of Systems and Software, IBM Watson Research Center

Mary Jane Irwin\*, Professor, Penn State University

Ed Lazowska\*, Professor, University of Washington

Dave Patterson\*, Professor, University of California, Berkeley

Bob Sproull, Fellow and Director of Sun Microsystems Cambridge Research Laboratory

William Wulf, President, National Academy of Engineering; and Professor, University of Virginia

\*member, Computing Research Association Board of Directors ■

## Scholarship Fund Established for Families of Sept. 11th Victims

Organizations representing more than one million scientists and engineers have established the "Science and Engineering Scholarship Fund" for families of victims of the September 11 terrorist attack.

Financially needy dependents of both domestic and foreign victims can rely on the fund to help them pursue science and engineering degrees at U.S. colleges and universities. The endowment is part of the broader Families of Freedom Scholarship Fund™, which is benefiting from a campaign led by Bill Clinton and Bob Dole to raise \$100 million through fund-raising events and gifts from corporations, foundations, and individuals.

To make a donation or learn about the Fund visit:

<http://www.aps.org/sciencefund.html>. Or, for more information, contact Sarah Davis at the American Physical Society: (301) 209-3223, [davis@aps.org](mailto:davis@aps.org).

**Sponsors:** Acoustical Society of America, American Association for the Advancement of Science, American Association of Engineering Societies, American Astronomical Society, American Chemical Society, American Crystallographic Association, American Geological Institute, American Institute of Biological Sciences, American Institute of Chemical Engineers, American Institute of Mining, Metallurgical and Petroleum Engineers, American Institute of Physics, American Mathematical Society, American Meteorological Society, American Physical Society, American Psychological Society, American Society for Cell Biology, American Society of Civil Engineers, American Society for Information Science and Technology, American Society of Mechanical Engineers, American Society of Parasitologists, American Society of Plant Biologists, Association for Women in Science, Computing Research Association, Council of Scientific Society Presidents, Ecological Society of America, Estuarine Research Federation, Federation of American Societies for Experimental Biology, The Institute of Navigation, The Institute of Electrical and Electronics Engineers, Inc. - USA, The International Society for Optical Engineers, Materials Research Society, Optical Society of America, Research!America, The Science Coalition, Society for Integrative and Comparative Biology, Society of Toxicology. ■

### Expanding Pipeline from Page 2

"Although I have always been planning on attending graduate school, the conference exceeded my expectations in expediting my decision of when to go, where to study, and what to study. I was impressed by the diversity of attendees. They were diverse in race, personality, interests, and talents, all of which combined to create an amazing setting for networking, and friendships that I will carry through the rest of my life."

"I just want to let you know how much our students enjoyed the symposium. I was with them yesterday at the undergraduate advisory committee meeting and they were telling everyone about it with such enthusiasm!!"

Just as with the Tapia Symposium 2001, the Tapia conference in 2003 will make an effort to involve as many students as possible. Scholarships will again be provided, and students will be asked to contribute ideas for speakers and conference activities.

The Tapia Symposium 2001 planning committee included: Valerie Taylor, Northwestern University, and Richard Alo, University of Houston-Downtown, as general co-chairs; Bryant York, Portland State University, and Sandra Baylor, IBM, as program co-chairs; Raquell Holmes, Boston University, technical posters chair; Cynthia Lanus, Rice University, banquet program

chair; Rose McKeon, Wanganui Polytechnic, scholarship chair; Valerie Taylor, Northwestern, Kevin Franklin, San Diego Supercomputer Center, and Yasha Karant, CSU San Bernardino, fundraising co-chairs; Patrick Bobbie, Southern Polytechnic State University, finance chair; Ann Redelfs, San Diego Supercomputer Center, publicity chair; Carlton Bruett, ACBDesign, designer; Jennifer Matthews, San Diego Supercomputer Center, Webmaster; Theresa Chatman, Rice University, Career Information Center and local arrangements chair; and Barbara Simons, ACM representative.

The Tapia Symposium 2001 was sponsored by ACM, with additional support from the National Science Foundation; the Alliances for Graduate Education and the Professoriate at Rice University; Argonne National Laboratory; the Computing Research Association; the Education, Outreach, and Training Program, Partnership for Advanced Computational Infrastructure; Microsoft Corporation; NASA; Rice University; and USENIX.

ACM's Richard Tapia Celebration of Diversity in Computing was planned by the Coalition to Diversify Computing (CDC - [www.npaci.edu/Outreach/CDC](http://www.npaci.edu/Outreach/CDC)), whose mission is to increase the

visibility of people of color in computing research and to provide networking opportunities for minority researchers, faculty, and students. CDC is a joint committee of the Association of Computing Machinery (ACM), the Computing Research Association (CRA), and the Institute of Electrical and Electronic Engineering (IEEE) Computer Society. For more information on CDC, see <http://www.npaci.edu/Outreach/CDC>.

*Valerie Taylor, CDC Co-Chair, is an Associate Professor of ECE at Northwestern University. ■*

### CRA Service Awards

Distinguished Service and  
A. Nico Habermann Awards  
Nominations Due  
**February 12, 2002**

For nomination details,  
see: <http://www.cra.org>

Software Licensing  
from Page 3

not have an ownership interest in the technology. Yang and Filo were Ph.D. students at Stanford and had used Stanford computers (which is usually considered to be incidental use) to develop the software; their professors confirmed that their invention was not related to their university responsibilities as students. Based on this information, Stanford did not claim ownership to what became the Yahoo! search engine.

In contrast, Sergey Brin and Larry Page had worked on a search engine for many years. Because the students had been paid by a government contract in the course of their research to satisfy their Ph.D. degree requirements, under both Stanford's Patent and Copyright policies Stanford had ownership to the software, that is, the written code. In addition, Stanford filed a patent on the method of ranking Web pages in order to improve searches. After trying to find the best licensee, Stanford determined that these inventors were in the best position to develop the invention effectively, and so Stanford licensed the technology to their company, Google.

The technology in both cases was similar, but the disposition of title to the intellectual property was different. Happily, both sets of students were able to exploit their invention, whether or not the university retained title. Thus "ownership," in itself, was not critical to the commercialization of the technology. Stanford benefited, even in the case of Yahoo!, by the philanthropy of the successful entrepreneurs when they, two of the university's youngest successful entrepreneurs, endowed the Yahoo! Founders Chair in the school of engineering.

### To Patent or Not to Patent: Does It Make a Difference in Licensing?

Stanford has successfully licensed both patented and unpatented software. In fact, most of Stanford's licensed software code is unpatented because it is often expensive to file software patent applications. On the other hand, we are willing to file patents on the ideas behind the software code if the concepts in the software are truly novel and enforceable, and if we believe the royalty return will be worth the expense of filing.

An early example of patented and copyrighted software was the "Computer and Method for the Discrete Bracewell Transform," filed in 1984 and issued in 1987, which described a particular mathematical calculation similar to, but more efficient than, the Discrete Fourier Transform. Although Hewlett-Packard licensed the patent and included the technology in one of its products, the Discrete Bracewell Transform was not a significant commercial success.

MINOS, an unpatented linear and non-linear optimization program, has been licensed for 20 years to more than 45 companies and non-profit entities in different fields of

use; we consider MINOS a commercial success. The program is not patented, yet it is robust and has survived the test of time. Unpatented CAD/CAM programs, such as SUPREM and PISCES, have been successfully licensed to companies who have independently further developed the software for sale to their own customers.

Software is not just for the electronics industry. Genscan is currently one of Stanford's most popular unpatented software programs, licensed to almost 70 biotechnology companies that use the program to predict complete gene structures in genomic DNA sequences. The license is no longer negotiated on a case-by-case basis, but is readily available and can be downloaded from the Web as a "ready-to-sign" agreement.

### Exclusive or Non-Exclusive Licensing or Public Domain

Stanford has had a long history of licensing software. In the 1980s, we recognized that software could be a valuable tool to researchers, and that making these tools available to others would benefit the research community. The Office of Technology Licensing (OTL) started a Software Distribution Center, which made nonexclusive licenses available "at cost" or at modest fees; OTL sent out tapes and handled the administrative aspects of distributing software. We now encourage software creators to make their software readily available to others for research purposes from their websites, and maintain copyright protection via "click wrap" licenses.

We decide whether to license software non-exclusively or exclusively, depending on the stage of development of the particular software. If the software needs additional development before it can be widely used, we will often grant an exclusive license to give the company an incentive to invest the resources needed to commercialize the software. In the case of Google, the entrepreneurs were granted an exclusive license after extensive marketing to existing companies because Google was willing to devote significant resources to developing and improving the software.

In many cases, Stanford has licensed software non-exclusively to start-up companies for the sole purpose of providing the company "access," not a proprietary position, to the software. Stanford granted MIPS, founded by John Hennessy, then a faculty member at Stanford and now its President, a non-exclusive license to use the software he developed. Likewise, software developed by Professor David Cheriton was licensed non-exclusively to his start-up company, Granite Systems, which was subsequently acquired by Cisco Systems. Neither company needed an exclusive license to raise capital or develop products.

VXtreme was a company started by Professor Anoop Gupta while a

Stanford faculty member. Stanford did not file a patent, but eventually granted VXtreme an exclusive license with a small amount of equity as partial consideration. VXtreme was subsequently sold to Microsoft, and the university used the proceeds to help fund 25 Stanford Graduate Fellowships.

Lastly, if a creator/inventor wants to put her software in the public domain so that no one has any intellectual property rights in the software, or if a creator/inventor wants to make the IP freely available, Stanford will be agreeable, so long as such an action does not conflict with any existing contractual obligations and does not create a conflict-of-interest issue.

### What Is a Typical Royalty Rate?

The royalty rate for software can vary dramatically, depending on the product's stage of development. If the software can be readily commercialized, the royalty may be on the "higher side," as much as 20 to 25 percent, since the development cost will be minimal for the licensee. If the software requires extensive rewriting or development, the royalty rate may be on the "low side," perhaps in the range of 5 percent. Some software is licensed for internal use only for a modest yearly payment. Financial terms of a license are typically negotiable, particularly for exclusive licenses, and are determined on a case-by-case basis.

### Royalty Sharing

Most universities have a policy of sharing royalties with inventors and/or creators. But the question of who should receive a share of royalty income for licensed software is sometimes a complicated issue. According to copyright law, a creator is someone who actually "writes" the code, and so the programmer may be the appropriate royalty recipient of unpatented, copyrighted software. In patent law, an "inventor" is someone who "conceived an essential element of the invention"; thus an "inventor" of software would not have had to write a line of code, but could be entitled to receive royalties. Lastly, some software is developed over several years and the code is written by so many creators/authors that it is essentially impossible to know who all the creators were. In this case, many universities would consider such a work to be an "institutional work" and would not share royalties with individuals. In most cases, royalty-sharing is determined on a case-by-case basis, based on policy guidelines.

### Distance Education

The next frontier in the intellectual property debate about software is the area of distance education. For most universities, the intellectual property policies around "distance education" are not entirely established; the debate revolves around ownership of content. Many faculty

feel that educational software is an extension of textbooks, which have traditionally been the property of faculty-authors. Many universities feel that the university resources often necessary to develop educational multimedia products entitle the university to some compensation or ownership in such educational material. This debate has been going on for many years and is likely to continue for many more.

### Conclusion

University ownership in software is generally covered by a university's copyright or patent policy. The disposition of title and royalties are complex issues and depend on the actual intellectual property protection for the particular software. Software creators should talk to an intellectual property professional for more information.

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*Katharine Ku (katharine.ku@stanford.edu) is Director of Stanford University's Office of Technology Licensing. Ms. Ku has a BS from Cornell University and an MS from Washington University, both in chemical engineering. ■*

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## Transitions and Announcements

The American Association for the Advancement of Science recently elected 288 members as Fellows of AAAS. In the Information, Computing, and Communication section, six individuals were recognized for their distinguished accomplishments: Elwyn Berlekamp, UC Berkeley; Edward D. Lazowska, University of Washington; Hans P. Moravec, Carnegie Mellon University; Calton Pu, Georgia Institute of Technology; Bruce R. Schatz, University of Illinois, Champaign; and Alan Jay Smith, UC Berkeley.

David Hennage was named Executive Director of the IEEE Computer Society, effective November 1, 2001. Dr. Hennage, who received a Ph.D. in molecular biophysics from Yale University, previously directed the American Nurses Association and the American Nurses Foundation, and the Optical Society of America.

Margaret Wright, formerly of Bell Labs, has been appointed chair of the computer science department at NYU's Courant Institute, effective January 2002. ■

### CRA-W Distributed Mentor Program 2002

**Deadline for Applications:  
February 1, 2002**

For details, see: <http://www.cra.org>



## Professional Opportunities

### CRN Advertising Policy

See <http://www.cra.org/main/cra.jobshow.html>

#### Adelphi University

As part of its program of continued growth and development, Adelphi University is expanding its tenured faculty ranks. We invite applications from candidates for the following positions in the College of Arts & Sciences:

**Mathematics:** Assistant Professor (Tenure Track, Fall 2002) Candidate sought with superior record in undergraduate teaching and demonstrated potential for research. All research specialties will be considered. Teaching responsibilities will include introductory and advanced courses in all areas of mathematics. Candidates will possess a Ph.D., a significant publication record, and show evidence of strong teaching and scholarly accomplishments.

**Computer Science:** Assistant Professor (Tenure Track, Fall 2002) Candidate with superior record in undergraduate teaching and a demonstrated potential for research. All research specialties will be considered. Teaching responsibilities will include introductory and advanced classes in computer science. Class sizes are small (under 30 students) and close interaction between faculty and students is encouraged. Candidates will have completed a Ph.D. in computer science or a closely related field or have equivalent professional experience.

Please send CV, statement describing accomplishments which speak to the above criteria (denoting position of interest) and the names of three references to:

Dr. W. L. Quirin, Chair  
Department of Mathematics & Computer Science  
Adelphi University  
Garden City, NY 11530  
E-mail: [quirin@adlibv.adelphi.edu](mailto:quirin@adlibv.adelphi.edu)  
Women and minority candidates strongly encouraged to apply. Adelphi University is an equal opportunity employer.

#### Alakhawayn University School of Science and Engineering

Alakhawayn University in Ifrane (based on the American university system), Morocco, School of Science and Engineering ([www.alakhawayn.ma](http://www.alakhawayn.ma)) has openings for faculty positions in Computer Science, for Fall 2002 but potentially beginning Spring 2002. English is the language of instruction.

Applicants must demonstrate superior teaching ability and practical experience in one of the following areas: Software Engineering, computer Communications and Systems, or computer Networks. Successful candidates are expected to perform some combination of teaching at undergraduate and/or graduate levels, applied research, and supervision of undergraduate/graduate student projects. Rank and salary is commensurate with qualifications and experience. Send letter of application, vita, and references to:

VPAA  
Al Akhawayn University in Ifrane  
PO. Box 104, Ifrane 53000, Morocco  
([vpaa@alakhawayn.ma](mailto:vpaa@alakhawayn.ma))

#### Argonne National Laboratory Undergraduate Program in Computational Science

**Mathematics and Computer Science (MCS) Division**

May 28-August 2, 2002 Argonne, Illinois

Focus: Research in numerical and non-numerical methods, parallel tools, scientific visualization, collaboration tools, distributed computing, computational science, and systems administration. See: [http://www.mcs.anl.gov/division/information/educational\\_programs/studentopps.html](http://www.mcs.anl.gov/division/information/educational_programs/studentopps.html).

Contact: Jan Griffin  
MCS Division, Argonne National Lab  
9700 S. Cass Ave.,  
Argonne, IL 60439  
[griffin@mcs.anl.gov](mailto:griffin@mcs.anl.gov)  
630-252-7271  
fax 630-252-5676  
Deadline: February 1, 2002.

#### Argonne National Laboratory Argonne, Illinois Mathematics and Computer Science (MCS) Division

**Summer Givens Associates Appointments**

Focus: for Ph.D. students at U.S. universities beginning careers in numerical analysis or computational mathematics. See: [http://www.mcs.anl.gov/division/information/open\\_positions/givens02.html](http://www.mcs.anl.gov/division/information/open_positions/givens02.html)

Contact:  
Jan Griffin  
MCS Division, Argonne National Lab  
9700 S. Cass Ave.,  
Argonne, IL 60439  
[griffin@mcs.anl.gov](mailto:griffin@mcs.anl.gov)  
630-252-7271  
fax 630-252-5676  
Deadline: February 11, 2002.

#### Arizona State University Computer Science and Engineering Department

The Department of Computer and Engineering of Arizona State University invites applications from outstanding candidates for tenure-track faculty positions at all ranks (Assistant, Associate, Full) for the year 2002 and 2002-2003. Applicants are required to have completed a Ph.D. in computer science, computer engineering, or a closely related field by the appointment date. Applicants at the assistant professor level must show exceptional promise in research and teaching. Applicants at the associate professor level and higher must demonstrate established excellence in research and teaching appropriate to the rank. There are two position at assistant professor level: desired background in the area of embedded systems. Desired areas for one senior level position (associate/full professor) are information technology and all related areas in computer science and engineering.

ASU is a major research university with emphasis on quality graduate and undergraduate education. The main campus is located in the city of Tempe which is in the metropolitan Phoenix area. The Department of Computer Science and Engineering provides a stimulating environment for research and teaching, with ample opportunities for partnerships with high-tech industry. For more information about the department, refer to the website:

<http://cse.asu.edu>  
Applications must include a detailed curriculum vitae, statement of teaching and research interests, hard copies of two most important publications, and the names and addresses of four references. Complete applications and nominations must be received by postdate and directed to:

The Chair of Faculty Search Committee  
Department of Computer Science and Engineering  
Arizona State University  
PO Box 875406  
Tempe, AZ 85287-5406

The initial closing date is January 15, 2002. Applications received after that date will be reviewed on a weekly basis until the positions are filled.

ASU is an Equal Opportunity/Affirmative Action employer.

#### Ashland University Department of Mathematics & Computer Science Assistant Professor, Computer Science (Tenure Track)

Ashland University, a private, comprehensive, liberal arts and sciences institution, seeks qualified candidates for the following August 2002 vacancy. Located midway between Cleveland and Columbus, Ashland University features undergraduate, graduate and professional programs in Ashland and at 12 program centers throughout the state with an enrollment of 6,000 students.

Responsibilities: Teach computer science courses in the major, in support of the core, and in support of other departments as qualifications allow; advise computer science majors; support the program's curriculum and physical facilities; provide service to the department and University community; and pursue scholarly activity. Qualifications: A Ph.D. in Computer Science is required. Ability to teach undergraduate computer science courses for majors and non-majors, demonstrated excellence in teaching, and a strong commitment to undergraduate teaching and professional development, are expected. To Apply: Send a letter of application, vita, three letters of recommendation and copies of transcripts to:

Computer Science Search Committee  
College of Arts & Sciences  
Ashland University, 401 College Ave.  
Ashland, OH 44805  
by Jan. 4. Additional information at [www.ashland.edu](http://www.ashland.edu). Ashland University is an AA/EOE employer and welcomes applications from women and minorities.

#### Auburn University Department of Computer Science and Software Engineering Assistant, Associate, and Full Professor

The Department of Computer Science and Software Engineering (CSSE) invites applications for a tenure-track faculty position at the Assistant, Associate, or full Professor level to begin fall semester 2002. Salary will be commensurate with the candidate's qualifications. Women and ethnic minorities are encouraged to apply. Responsibilities include research, graduate student supervision, and graduate and undergraduate teaching. In addition, successful applicants will be expected to participate in departmental, college, and university service activities.

Applicants should have a Ph.D. in computer science, software engineering, or a closely related field; however, applicants that

are ABD may apply if they reasonably expect to complete the terminal degree by January 2003. The following are preferred research areas: computer and communication networks, wireless engineering, information assurance and security, real-time and embedded systems, wearable computing, operating systems, interactive and intelligent systems, database systems, and software engineering; however, all areas of computer science and software engineering will be considered.

CSSE is in the process of forming a center for Innovations in Mobile, Pervasive, and Agile Computing Technologies (IMPACT), which is a joint effort with the Department of Electrical and Computer Engineering. The University will invest over \$1M (estimated) in five years in new positions with an objective of gaining national prominence in the IMPACT research areas.

The CSSE Department currently has 17 full-time faculty members and supports strong undergraduate (B.S., B.Sw.E.) and graduate programs (M.S., M.Sw.E., Ph.D.). Enrollment for Fall 2001 is approximately 600 undergraduate and 100 graduate students. Faculty research areas include software engineering, computer and communication networks, human-computer interaction, wearable computing, artificial intelligence, and database systems. More information about the Department and faculty research interests can be obtained from the Department's home page (<http://www.eng.auburn.edu/csse>).

Auburn University was chartered in 1856, and is the largest university in the state of Alabama, with a student enrollment of over 22,000 and 1,125 faculty. Auburn is located 100 miles southwest of Atlanta and 50 miles northeast of Montgomery, the State Capitol. Auburn offers nearly 150 baccalaureate degree programs in 64 academic departments. The Graduate School provides master's level programs in 130 areas and doctoral programs in 96 fields. The College of Engineering has an enrollment of 3,100 undergraduates and 500 graduate students in eight departments. The picturesque main campus covers 1,875 acres, and includes the entire southwest quadrant of the city of Auburn. The Auburn-Opelika community has a population of about 70,000, an excellent public school system, and has been nationally ranked as one of the "best small towns in America".

Applicants should submit a current curriculum vita, research vision, teaching philosophy and three references to:

James H. Cross II, Professor and Chair  
Computer Science and Software Engineering  
107 Dunstan Hall  
Auburn University, AL 36849-5347  
[cross@eng.auburn.edu](mailto:cross@eng.auburn.edu) (with copy to [sheriev@eng.auburn.edu](mailto:sheriev@eng.auburn.edu))  
334-844-6300 (Voice)  
334-844-6329 (Fax)  
<http://www.eng.auburn.edu/csse/>

The applicant review process is expected to begin in January 2002 and continue until successful candidates have been identified.

Auburn University is an Affirmative Action/Equal Opportunity Employer.

#### Brown University Division of Applied Mathematics

The Division of Applied Mathematics at Brown University seeks applicants for a position at the Assistant, Associate Professor or Full Professor rank, in the general areas of statistics and probability. See the Division web site at [www.dam.brown.edu](http://www.dam.brown.edu) for a full posting. Brown University is an Affirmative Action/Equal Opportunity employer. Women and minorities are encouraged to apply.

#### Brown University Computer Science Faculty Position

The Brown University Computer Science Department is seeking to expand its faculty. We are particularly interested in areas of experimental and theoretical computer science including distributed systems, databases, operating systems, mobile computing, security, cryptography, data structures and algorithms, combinatorial and stochastic optimization, bioinformatics, and computational biology. Outstanding applications are invited in these or other areas for a tenure-track assistant professor position in computer science commencing no later than September 1, 2002. Preference will be given to those candidates who best meet the teaching and research needs of the department. The initial appointment will be for three years and is renewable. Exceptional candidates at either the associate or full professor level having an outstanding research and teaching background who strongly meet the needs of the department will also be considered.

Successful applicants will find at Brown a stimulating environment conducive to professional growth. Brown has a strong department with a variety of interesting research projects in analysis of algorithms, artificial intelligence, combinatorial optimization, computational complexity, computational geometry, computer graphics, computer vision, concurrent data structures and architectures, constraint programming, data mining, database systems, distributed computing, e-commerce, graph drawing, information security, operating systems, parallel computation, programming

environments, programming languages, robotics, scientific visualization, and software engineering.

Applicants should send a resume in hard copy and have at least three referees send letters of recommendation (five for senior candidates) to:

Prof. Steven P. Reiss  
Dept. of Computer Science  
Brown University  
Box 1910  
Providence, RI 02912

Inquiries may be addressed to [faculty\\_search@cs.brown.edu](mailto:faculty_search@cs.brown.edu). All application materials must be received by January 15, 2002 for full consideration. Brown University is an equal opportunity/affirmative action employer and strongly encourages applications from women, minorities, and protected persons.

#### Bucknell University Department of Computer Science

Applications are invited for two tenure track assistant professor positions beginning mid-August, 2002. A Ph.D. in Computer Science or Computer Engineering and evidence of commitment to excellence in teaching and research are required. Must have interest in participating in the teaching and the ongoing development of one or more of the required curriculum areas including the introduction to computer science sequence, computer organization, programming languages, data structures, operating systems, and architecture. Excellent salary and fringe benefits. Position 1: Requires primary ongoing participation in the offering and development of the required programming languages course and electives in that area of programming languages. Research should be in the area of programming languages.

Position 2: Requires ongoing participation in required courses. The position should help us expand our elective offerings. Research area is open.

Bucknell is a highly selective private undergraduate institution. The Department of Computer Science currently has nine full-time faculty. The programs are accredited by both ABET and CSAB. More information about the program is found at <http://www.eg.bucknell.edu/csci>. The computing environment for instruction and research is based on 70 SUN Ultra 4 workstations.

Applications will be considered as received and recruiting will continue until the positions are filled. Please send a resume, graduate transcript (photocopy acceptable), and the name of three references to:

Gary Haggard, Chair  
Dept. of Computer Science  
Bucknell University  
Lewisburg, PA 17837

Bucknell encourages applications from women and members of minority groups (EEO/AA).

#### Butler University Computer Science & Software Engineering Faculty Position

<http://www.butler.edu/csse>  
OUTSTANDING OPPORTUNITY TO PARTICIPATE IN THE DEVELOPMENT OF A NEW SOFTWARE ENGINEERING INITIATIVE.

The Department of Computer Science and Software Engineering at Butler University invites applications for a tenure-track position at the assistant or associate professor level. Area of expertise is open. Preference will be given to applied areas such as, but not limited to, Software Engineering, Computer Networks and Distributed Systems. The department, which is housed in a beautiful new building, consists of four full-time faculty and about 60 undergraduate majors in computer science. Class sizes are small; our students expect and receive individual attention. In addition to our computer science program, we are in the process of developing a unique undergraduate program in software engineering. Both programs have an early emphasis on mathematical problem solving. Research involving undergraduates and collaboration with local industry are both supported and encouraged. Applicants should have a Ph.D. in Computer Science or a closely related discipline. A strong commitment to teaching and distinction in scholarship are expected and encouraged. Send a detailed resume to:

Professor Peter B. Henderson, Head  
Department of Computer Science and Software Engineering  
Butler University, 4600 Sunset Ave.  
Indianapolis, IN 46208-3485 USA

and arrange to have at least three letters of reference sent to the same address; the letters should address both the research potential of the applicant and provide evidence of quality teaching. Screening will begin immediately, and continue until the position is filled.

Butler University, with an enrollment of 3400 undergraduate students, is located in a residential area of Indianapolis, Indiana, and offers an array of professional and pre-professional programs within the context of a strong commitment to the traditional arts and sciences and to the values of liberal education. It enjoys a national reputation for excellence and quality, and has been ranked among the

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## Professional Opportunities

top institutions in its Carnegie category (see, for example, the USNews ranking).

Letters and requests for information may also be sent to [recruits@butler.edu](mailto:recruits@butler.edu). In addition, please e-mail to the same address a URL pointing to your online resume and publications.

Butler University is an equal opportunity employer and is committed to enhancing the diversity of the student body and its faculty and staff, therefore women and minorities are strongly encouraged to apply.

### California State University, Chico Department of Computer Science Computer Science Faculty Positions

Applications are invited for two tenure-track positions at either the assistant or associate level, and one lecturer position to be filled by August 2002. A Ph.D. (by time of appointment) in computer science or a closely related field is required for the tenure-track positions. A record of funded projects is required for appointment at the associate level. A Masters Degree in computer science or a closely related field is required for the lecturer position. Ability to teach a broad range of computer science topics is required (especially networks, architecture, e-commerce, theory,

compilers, operating systems). Candidates in all areas of computer science are encouraged to apply. The department focuses primarily on teaching at the undergraduate and graduate level but probationary faculty are also to become involved in obtaining funding and directing projects for productive research programs.

As a university that educates students of various ethnic and cultural backgrounds, we value a diverse faculty and staff. CSU, Chico welcomes applicants who are knowledgeable about and interested in working within a crosscultural learning environment.

The department offers several Bachelors Degrees and a Masters Degree. For the past two years, Hewlett-Packard has hired more graduates from our department than from any other department in the country. We have over 600 undergraduate majors, 150 graduate students and 21 faculty. Our proximity to Sacramento (90 miles) and the Bay Area (180 miles) provides opportunities for industry and state government collaboration.

The city of Chico offers an outstanding quality of life, and is often rated one of the best small U.S. cities. With fewer than 100,000 people, it has the feel of a friendly small town but it is also a cultural, entertainment, dining, and shopping hub of north

central California. Chico has a great four season climate, with mild winters and 250 days of sunshine. Housing prices are reasonable. Chico has an innovative public school system that offers everyone a choice of schools, and has several special programs (e.g., music immersion, Spanish immersion, academic plus).

Its location at the base of the Sierra Nevada foothills offers excellent access for hiking, camping, skiing, boating, rock climbing, and fishing.

Review of applications begins **January 15, 2002** and will continue until the positions are filled. Please send a letter of application describing your teaching and scholarship experience / interests, vita, and names of three references to:

Dr. Anne Keuneke, Chair  
Department of Computer Science  
California State University, Chico  
Chico CA 95929-0410  
Phone: 530-898-6442  
[www.ecst.csuchico.edu/csci](http://www.ecst.csuchico.edu/csci)

For disability-related accommodations, call TDD 530-898-4666. EOE/AA/ADA CSUC only employs individuals lawfully authorized to work in the U.S.

### California State University, Hayward

Department of Mathematics and  
Computer Science  
Three Faculty Positions

<http://www.mcs.csuhayward.edu>

CSUH, located overlooking San Francisco Bay, invites applications for three tenure-track appointments (Assistant Professor rank) in the Department of Mathematics and Computer Science, effective Fall 2002. Candidates must exhibit the potential for exceptional teaching, excellent research, leadership in curriculum development, and an interest in collaboration with industry. Candidates must hold Ph.D. in Computer Science, Computer Engineering, or closely related field.

The Department offers both B.S. and M.S. degrees in Computer Science; also an interdisciplinary M.S. program in Telecommunication Systems. For full details, consult the website.

COMPUTER NETWORKS (Position #99-00 MCS-NETWORKS-TT): Areas of technical expertise must include analysis, design, or implementation of data communication networks and distributed systems. Mail: Computer Networks Search Committee. Email: [cnet-search@mcs.csuhayward.edu](mailto:cnet-search@mcs.csuhayward.edu)

COMPUTER SCIENCE (Position #02-03 MCS-COMPSCI-TT): Open to all areas of specialization in software development, but preference may be given to software design and implementation, object-oriented methodologies, web-based technologies, database applications, algorithms, or theory. Mail: Computer Science Search Committee. Email: [cs-search@mcs.csuhayward.edu](mailto:cs-search@mcs.csuhayward.edu)

COMPUTER ENGINEERING (Position #02-03 MCS-COMPENG-TT): Preference may be given to those with expertise in architecture of high speed digital networks, VLSI design methodologies, embedded systems, or hardware/software codesign and verification. Mail: Computer Engineering Search Committee. Email: [ceng-search@mcs.csuhayward.edu](mailto:ceng-search@mcs.csuhayward.edu)

Send resume and arrange to have three letters of reference sent to the appropriate search committee at:

Dept. of Math/CS; CSU Hayward  
25800 Carlos Bee Blvd.  
Hayward, CA 94542-3092

Review of applications begins January 2, 2002. CSUH, situated close to Berkeley, San Jose, and San Francisco, is an EOE and is committed to its mission of "Educational excellence for a diverse society".

### Carnegie Mellon University Engineering and Public Policy Faculty Openings

See [www.epp.cmu.edu/other.html](http://www.epp.cmu.edu/other.html)  
Contact:  
Granger Morgan  
Department Head  
Carnegie Mellon University  
Pittsburgh PA 15213

### Carnegie Mellon University School of Computer Science

#### Assistant Professor / Research Scientist

The School of Computer Science at Carnegie Mellon University spans a wide range of topics in computer science and the application of computers to real-world systems. It houses the Center for Automated Learning and Discovery; Computer Science Department; Human Computer Interaction Institute; Institute for Software Research, International; Language Technologies Institute; and the Robotics Institute, with research and tenure-track faculty in all of these organizations.

The School of Computer Science seeks applicants for junior level tenure- and research-track faculty positions. We are especially interested in those whose research activities lie in the areas of Algorithms, Computer Graphics, Computer Systems, Human Computer Interaction (Design), and Software Engineering, but we will consider outstanding candidates in other areas.

All candidates are expected to have a strong interest in research, outstanding academic credentials, and an earned Ph.D. Candidates for tenure-track appointments should also have a strong interest in graduate and undergraduate education. The highly selective undergraduate and graduate programs in the School of Computer Science draw top students from around the world. Further information about the School of Computer Science and its programs may be found on the SCS home page (<http://www.scs.cmu.edu/>).

Review of faculty applications will begin on January 1, 2002. To ensure full consideration, applications should be received by February 1, 2002, but will be accepted until all positions are filled.

Each application should include curriculum vitae, statement of research and teaching interests, copies of 1-3 representative papers, and the names and email addresses of three or more individuals who have been asked to provide letters of reference. Applicants should arrange for reference letters to be sent directly to the Faculty Search Committee (hard copy or email), to arrive before February 1, 2002. Letters will not be requested directly by the Search Committee. All applications should



Applications are invited for **one** full-time tenure-track position, at the **Associate Professor** level, commencing July 1, 2002, or as soon as possible thereafter. Minimum qualifications are a PhD in Computer Science or equivalent, with a minimum of five years experience in a faculty position at a postsecondary institution, and a superior record in both teaching and research in one of the subdisciplines identified below. A Faculty of Science startup research grant will be awarded to all newly appointed faculty members.

For this position, we are seeking expertise in Databases, Software Engineering, artificial intelligence, human-computer interaction, programming languages and compilation, operating systems, networks, or parallel systems. In addition, outstanding candidates in other areas, particularly recently emerging areas such as multimedia, mobile computing, and web-based computing will be considered. Duties will include undergraduate and graduate teaching and supervision, research, and service-related activities.

The Department currently has 24 full-time tenure-track faculty members plus a number of teaching appointments, and offers a full range of both undergraduate and graduate programmes, including cooperative programmes. We currently have over 45 graduate students.

The Department is a well-established one that has recently entered into a major expansionary phase. The Computer Science Department Development Plan is a new initiative, funded by the Provincial Government of Manitoba. The Plan provides \$3.6 million of additional, special funding over four years for the expansion of the Computer Science department. The Plan includes ten new faculty positions, as well as new support staff positions, several new undergraduate teaching laboratories, and significant upgrading of infrastructure. In addition, a new \$45M Engineering and Information Technology Complex is being planned, which will house the teaching and research activities of the department. Current and planned departmental facilities include a parallel computing lab, a software development and testing lab, an advanced networking lab, and a parallel systems lab. Large-scale parallel computing access is also available via CA\*net 3. The Department provides excellent technical support for both teaching and research.

Winnipeg has a great deal to offer, both culturally and recreationally, with a number of professional and ethnic arts groups, professional sports teams, outstanding restaurants, and many opportunities nearby for all types of outdoor activities in all seasons. The Winnipeg housing market is one of the most favourable in Canada to the home buyer.

This is an excellent opportunity for individuals with outstanding research potential and a commitment to excellence in teaching to get in on the ground floor of an exciting, expanding department. *The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples, and persons with disabilities. In accordance with Canadian immigration requirements priority consideration will be given to Canadian citizens and permanent residents.*

Further information concerning the Department and the University may be obtained from the Department's website and the University's website.

Applicants should send a *curriculum vitae* and the names of three referees to the address below. Qualified women are particularly encouraged to apply. **Consideration for the positions will commence immediately and will continue until June 30, 2002, or until the positions are filled.**

Chair of Search Committee  
Department of Computer Science  
University of Manitoba  
Winnipeg, Manitoba R3T 2N2  
Canada  
E-mail: [search@cs.umanitoba.ca](mailto:search@cs.umanitoba.ca)  
Telephone: (204) 474-8313  
Fax: (204) 474-7609  
Website: [www.cs.umanitoba.ca](http://www.cs.umanitoba.ca)

## Professional Opportunities

indicate citizenship and, in the case of non-US citizens, describe current visa status.

Faculty Search Committee  
ATTENTION: Sharon Burks  
School of Computer Science  
Carnegie Mellon University  
5000 Forbes Avenue  
Pittsburgh, PA 15213-3891  
Applications and reference letters may also be submitted via email (postscript or .pdf format) to [faculty-search@cs.cmu.edu](mailto:faculty-search@cs.cmu.edu).

Carnegie Mellon is an affirmative action/equal opportunity employer and we invite and encourage applications from women and minorities.

### Clarke College

#### Computer Science Department

Clarke College, a growing, Catholic, coeducational, liberal arts college is seeking candidates for a full-time faculty position in the Computer Science Department. This is a tenure-track position beginning August 2002. A Ph.D. in Information Systems, Computer Science, or a closely related field is preferred. Enthusiasm for teaching a wide range of computer information systems undergraduate and graduate classes is essential; additional experience establishing and teaching in a graduate CIS program is desirable. Located within the scenic tri-state area of NE Iowa, SW Wisconsin, and NW Illinois, Dubuque offers a great quality of life and is within driving proximity to Chicago, Madison, and the Twin Cities. Visit Clarke's website at: [www.clarke.edu](http://www.clarke.edu). Please contact Sheila Castaneda with questions at: Phone (563) 588-6401, or e-mail: [cast@clarke.edu](mailto:cast@clarke.edu). Applicants should send a letter of application addressing teaching philosophy and experience and a current CV/resume to:

Clarke College  
Human Resources Department  
1550 Clarke Dr.  
Dubuque IA 52001  
Clarke is an Equal Opportunity Employer.

### Clemson University

#### Computer Science

##### Faculty Positions

The Department of Computer Science at Clemson University has multiple openings for tenure-track faculty positions at all levels as well as lecturers. Outstanding candidates in all areas of Computer Science are encouraged to apply. Current faculty interests include algorithms and theory, graphics & visualization, networking and systems, programming languages, and software engineering. Applicants for the tenure-track positions should have a Ph.D. in computer science or a related field. Applicants for the lecturer positions should hold an M.S. in computer science and should be committed to high quality undergraduate instruction. The Department has 21 faculty members, about 600 undergraduate majors, and over 100 graduate students. In addition to B.A., B.S., M.S. and Ph.D. degrees in Computer Science, the department also offers inter-disciplinary degrees in E-Commerce and Fine Arts in Computing. Clemson University is the land-grant university of South Carolina and has an enrollment of approximately 17,000. The University is located in Clemson, South Carolina, a small college town on beautiful Lake Hartwell at the foothills of the Blue Ridge Mountains. The area offers numerous outdoor activities. For additional details, please see [www.cs.clemson.edu](http://www.cs.clemson.edu). Electronic applications (preferably in PDF), including names of three references, may be sent to [search@cs.clemson.edu](mailto:search@cs.clemson.edu). If unavoidable, hard copies may be mailed to:

Faculty Search Committee  
Department of Computer Science  
Clemson University  
Clemson, SC 29634-0974

Applications will be accepted and screened periodically beginning September 1, 2001. The search will continue until the positions are filled. Clemson University is an Affirmative Action/Equal Opportunity Employer.

### College of Charleston, Charleston, South Carolina

#### School of Science and Mathematics

##### Dean

The College of Charleston invites applications for the position of Dean of the School of Science and Mathematics. The position description and qualifications are available at <http://www.cofc.edu/~ssm/deanadv.html> EO/AAE.

### Columbia University

#### Department of Computer Science

The Department of Computer Science anticipates filling several tenure-track positions, as well as at least one non-tenure-track position with length of service up to seven years. We invite applications from exceptional candidates at all ranks and in all areas, but especially in information systems, networking, software, theory, computer engineering, human-computer interaction, and computer graphics.

Our department of 23 tenure-track faculty and 5 non-tenure track emphasizes excellence

in research and teaching and attracts excellent Ph.D. students, virtually all of whom are fully supported by research grants. We have close ties to the nearby research laboratories of AT&T, IBM, Lucent, Siemens, Verizon, Telcordia Technologies, NEC, and other leading industrial companies, including the start-up companies of Manhattan's Silicon Alley and the financial companies of Wall Street. Columbia University is one of the leading research universities in the United States, and New York City is one of the cultural, financial, and communications capitals of the world. Columbia's enclosed campus of tree-lined walks is located in Morningside Heights, on the Upper West Side.

All applicants should have a Ph.D. in a relevant field. Applicants for tenure-track assistant professor should exhibit exceptional research promise, while those seeking a more senior position should have an outstanding record of research achievement. Applicants for non-tenure track position should exhibit exceptional teaching skills, as well as strong research promise.

Applicants should submit summaries of research and teaching interests, CV, email address, and the names and email addresses of at least three references by filing an online application at:

<http://www.cs.columbia.edu/recruit>

Review of applications will begin on December 1, 2001.

Columbia University is an Equal Opportunity/Affirmative Action Employer. We encourage applications from women and minorities.

### Columbia University

#### Department of Computer Science

The Department of Computer Science anticipates one or more non-tenure track openings for outstanding classroom instructors with a strong background in computer science or in any computer-related mathematical discipline. These positions carry the rank of Assistant Professor or higher, depending upon qualifications. Length of service is one to seven years. Salary competitive.

The favorable teaching load, presently 2-1, facilitates research activity with other computer science faculty. Recent non-tenure track assistant professors have made career steps into areas including computer vision, financial modeling, and genomics. Our department currently has 23 tenure-track faculty and 5 non-tenure track faculty, and we expect the number of faculty to increase. Our present non-tenure track faculty earned their Ph.D's at Berkeley, Brandeis, Johns Hopkins, and Stanford.

We have close ties to the nearby research laboratories of AT&T, IBM, Lucent, Siemens, Verizon, Telcordia Technologies, NEC, and other leading industrial companies, including those on Wall Street and in Manhattan's Silicon Alley. Columbia's enclosed campus of tree-lined walks is located in Morningside Heights on the Upper West Side of New York City, one of the cultural, financial, and communications capitals of the world.

Please submit a CV, a statement of proposed teaching and research activity at Columbia, an email address, and the names and email addresses of three references, preferably by filing an online application using the form at:

<http://www.cs.columbia.edu/recruit>

A confirmation of receipt will be sent by email.

Further information may be obtained from Professor Jonathan L. Gross, Assistant Professor Non-tenure Track Search Chair by EMAIL: [gross@cs.columbia.edu](mailto:gross@cs.columbia.edu).

Columbia University is an Equal Opportunity/Affirmative Action Employer. We encourage applications from women and minorities.

### Cornell University

#### School of Operations Research and Industrial Engineering

##### Faculty Position in Data Mining

A tenure-track or tenured faculty position in Data Mining is available in the School of Operations Research and Industrial Engineering at Cornell University. Rank will depend on experience and qualifications; for a particularly distinguished scholar, there is the possibility of a chaired appointment. The candidate would develop courses and supervise data mining projects, as well as interact with business and industry. Breadth, depth, and flexibility are valued. Depending on a candidate's interests, the position could include formal links to Cornell's Faculty of Computing and Information and/or Department of Statistical Sciences.

Candidates should have a Ph.D. in Operations Research, Statistics, Computer Science, or a related discipline. Excellence in both research and teaching is required. Applicants should provide a c.v., a 1-page statement of research directions and teaching interests, a doctoral transcript for junior applicants, and other supporting materials. They should also arrange for four recommendation letters to be mailed. All relevant materials should be sent to:

### The University of Washington, Bothell Professor and Director, Computing and Software Systems Program

Applications and nominations for the position of Professor and Director of the Computing and Software Systems Program (CSS) are invited. UWB is an upper-division and graduate campus, serving traditional and non-traditional students in innovative and interdisciplinary degree programs. The CSS Program offers a BS degree and two minors. The program plans to offer a career-transition Master degree program.

Qualifications include: ability to guide the program during its formative growth and development; demonstrated academic leadership and collaboration; minimum two years' experience in program development and management; earned doctorate in technology-related field; scholarly record commensurate with appointment as full professor; commitment to excellence in education; ability to attract external funding. Responsibilities include: faculty leadership and development; collaborations with local industry; program administration; campus-wide planning; business and community relations; and limited teaching. Applicants from all technology-related disciplines will be considered. Salary is competitive.

Please send a curriculum vitae; list of references; and a letter describing leadership and administrative experience, strategies to encourage excellence in teaching and research, program development record, and experience working collaboratively with faculty. Priority deadline is February 15, 2002. Send materials to: Chancellor's Office, Box 358520; CSS Program Search Committee; UW Bothell; 18115 Campus Way NE; Bothell, WA 98011-8246.

<http://www.bothell.washington.edu/CSS/>

For a full position description: <http://www.washington.edu/admin/eoo/ads>

The UW is an EO/AA employer.

The Faculty Search Committee  
School of ORIE, Rhodes Hall  
Cornell University  
Ithaca, NY 14853

Applicants should apply as early as possible. Applications received before January 15, 2002 will receive full consideration. Women and minority candidates are especially encouraged to apply. Cornell University is an affirmative action/equal opportunity employer.

### CSIRO

#### Mathematical & Information Sciences Science and Industry Manager, Distributed Information Systems Sydney or Canberra. Senior R&D management role: Attractive Remuneration Package

We have an opportunity for a dynamic person with a track record of leadership, research and commercial achievement to join our Division's Executive Team. Our Distributed Information Systems program currently consists of around 18 researchers. We have an established and respected activity in middleware technology evaluation. We have recently established teams developing innovative applications using high-bandwidth networks and evaluating B2B systems.

You will provide leadership to our Distributed Information Systems program, by guiding the development of the program, maintaining contact with the industry and research organizations to determine research and business opportunities, and managing the program. You will also be responsible for the career development of the program's staff, and for collaborating with other Science and Industry Managers to identify and perform multi-disciplinary research.

As a member of the divisional management team, you will play a pivotal role in the strategic development of the Division and in operational management.

You will need to have an excellent track record of leadership and management capability in an R&D environment, combined with strengths in strategic and applied research. As much of our activity is collaborative, with other CSIRO Divisions, with other research institutions and with industry, a strong capacity for working cooperatively is highly desirable. The appointment is for a period of three years and will involve an annual performance contract. Relocation assistance is available.

Applications should be sent to

[Lucinda.Bennie@cmis.csiro.au](mailto:Lucinda.Bennie@cmis.csiro.au)

For information on the portfolio, please see <http://www.cmis.csiro.au/adsat/>. For information on the Division and how to apply, please see [www.cmis.csiro.au](http://www.cmis.csiro.au)

CSIRO is an equal opportunity employer

### Dartmouth College

#### Department of Computer Science

Postdoctoral Research Associates in Computer Science: We have received two new grants from the National Science Foundation for research in Computational Biology and Chemistry. We are looking for persons with a doctorate in computer science to conduct focused research in computational biology, specifically, on computational structural biology and computer-aided drug design.

Applications should be sent to Professor Bruce R. Donald. For application instructions, more on this position, our research, job placement for Donald Lab alumni, and life at Dartmouth, please see:

<http://www.cs.dartmouth.edu/~brd/jobs/>

### DePaul University

#### School of Computer Science, Telecommunications and Information Systems

##### Tenure-track Full-time Faculty Positions

The School of Computer Science, Telecommunications and Information Systems (CTI) of DePaul University invites applications for multiple tenure-track positions beginning September 2002. We welcome applications from outstanding applicants in all areas of specialization. CTI is a young and growing school in downtown Chicago, with a wide range of degree programs. Undergraduate programs include Computer Science, Information Systems, E-Commerce Technology, Human-Computer Interaction, Network Technology, and Computer Graphics and Animation. Graduate programs at the Masters level include Computer Science, Telecommunications, E-Commerce Technology, Information Systems, Distributed Systems, Human-Computer Interaction, Software Engineering, and Management Information Systems. CTI also offers a Ph.D. program in Computer Science.

CTI currently has over 80 full-time faculty and a student body growing at a rate of approximately 20% per year. By bridging faculty from several areas of computing and information technology and by placing them in the Loop — the heart of Chicago's business and financial district — DePaul has established a unique, dynamic, and entrepreneurial school. CTI rewards excellent teaching, provides strong support for research, and encourages creative applied scholarship. DePaul draws students of many backgrounds and cultures from a diverse urban setting. Thus, CTI is interested in recruiting and maintaining a diverse group of faculty. Members of all underrepresented groups, women, veterans, and persons with disabilities are invited and encouraged to apply. In Computer Science, faculty are actively pursuing research in a wide variety of areas, including artificial intelligence, computational complexity, computer vision, databases, distributed computing, foundations of programming languages, graphics, human computer interaction, information retrieval, intelligent agents, parallel and distributed algorithms, quantum computation, software engineering, and web data mining.

In Telecommunications, faculty are actively pursuing research in performance analysis of data networks, techniques for providing differentiated quality of service to Internet applications, formal methods in protocol development, efficient reliable multicast for multimedia systems, distributed network management architectures, and effective wireless network coding techniques.

In Information Systems, faculty actively pursue research in electronic commerce, global information systems, system development methodologies, technology-supported learning, IT job skills, group support systems, collaborative systems design, data mining, business reengineering, IT outsourcing, and IT strategy and planning. Candidates should have a Ph.D. in a relevant field by the date of appointment. To apply, complete the online application form (at [www.cti.depaul.edu](http://www.cti.depaul.edu)) and send a curriculum vita, a teaching statement, a research statement and at least three letters of reference to:

(cont'd)

## Professional Opportunities

Faculty Search Committee, School of Computer Science, Telecommunications and Information Systems  
DePaul University  
243 South Wabash Avenue  
Chicago, IL 60604-2301  
E-mail: faculty\_search@cti.depaul.edu  
Electronic submission of documents is strongly encouraged. Applications will be accepted until positions are filled. DePaul University is committed to equality in educational and employment opportunities.

### Drew University The Department of Mathematics and Computer Science

The Department of Mathematics and Computer Science at Drew University invites applications for a senior tenure-track position in computer science, beginning Fall, 2002. Drew is a highly selective liberal arts college in suburban northeastern New Jersey. The department offers an undergraduate major and minor in Computer Science, and the teaching load is five courses per year.

This position requires excellent teaching, effective leadership, scholarly activity in computer science, and university service. Candidates should have a strong record in these areas and a Ph.D. in Computer Science or closely related field. Rank, salary and term to tenure will be commensurate with previous relevant experience, both academic and non-academic.

Applications must include a complete curriculum vitae and three letters of recommendation, at least two of which address the candidate's teaching. Full consideration is guaranteed if the application is received by January 14, 2002. Late applications may be considered until the position is filled. Materials sent before November 1, 2001 will be considered if a request is made after that date. This position is contingent on final University budget approval. Drew University has a strong non-discrimination policy for employment and hiring, and is an Affirmative Action, Equal Opportunity employer.

Send application materials to:

Carol Alfano  
Computer Science Search Committee  
Drew University  
Madison, NJ 07940-4037

or to skass@drew.edu, as follows: Use the phrase "CS SEARCH" as the message subject. Provide materials as Text, Word, Postscript, HTML or PDF.

### Drexel University Computer Science & Information Systems

Drexel University invites applications for multiple full-time positions at all levels in computer science and information systems. Appointments are available in the College of Information Science and Technology and the Department of Mathematics and Computer Science. Preferred interests include: SOFTWARE ENGINEERING, GRAPHICS, DATABASES AND INFORMATION RETRIEVAL, REQUIREMENTS ENGINEERING, PROGRAMMING LANGUAGES AND COMPILERS. Strong applicants in other areas are encouraged to apply.

Drexel's CS/IS programs are among the fastest growing in the nation. We have rapidly expanding graduate education and research programs emphasizing applied research, with a tradition of both quantitative and qualitative research that encourages interdisciplinary activity. We consider experience in industry a plus. Drexel's combined CS/IS programs have over 50 faculty members and 2000 students in bachelor's, master's and doctoral degree programs. Drexel, an affirmative action/equal opportunity employer, is a privately endowed technology university with about 12,000 students.

To apply, send cover letter and CV along with names and contact information for four references to:

CS/IS Faculty Search, Rush Building  
Drexel University  
Philadelphia, PA 19104  
Telephone (215) 895-2486  
Fax: (215) 895-2494  
E-mail: csis-search@drexel.edu  
WWW: <http://www.mcs.drexel.edu/csis-pos/>

Applicant review and interviews begin immediately and will continue until the anticipated positions are filled.

### Duke University Department of Electrical and Computer Engineering FACULTY POSITIONS AVAILABLE

The Department of Electrical and Computer Engineering, in the Pratt School of Engineering at Duke University, invites applications for tenure-track faculty at all ranks. With strong University support, the Pratt School is undergoing a period of substantial and rapid expansion of its faculty. Also we are planning the construction of a new research and teaching facility that will more than double our available space.

We are particularly interested in candidates with a strong background in one or more of the sub disciplines of electrical and computer engineering who have developed an

interdisciplinary research program. Collaborations with the biological sciences and medicine are well matched to Duke's strengths. In addition, the Department will play a leading role in a new Photonics and Communications initiative, and is interested in including new experimental programs that relate to any of these areas of interest. The emphasis on hiring this year includes (but is not limited to) the areas and sub-areas of Computer Engineering (networking, computer architecture and software engineering), Telecommunications (wireless and optical communication, communication theory, computer and optical networks, telemedicine, and control of communication systems), and Signal Processing (computer imaging, biological systems, and remote sensing of the environment).

Candidates should have a doctorate in electrical and computer engineering or related field, an outstanding research record commensurate with their experience, and dedication to excellence and innovation in both undergraduate and graduate teaching. Candidates should apply by sending a resume, a statement of research interests with copies of three publications, and names, postal and email addresses, and phone numbers of 5 references to:

ECE Dept Search Committee (Specify Computer Engineering, Telecommunications, Signal Processing, or indicate another area)  
Department of Electrical and Computer Engineering  
Box 90291, Duke University  
Durham, NC 27708-0291  
Duke University is an equal

opportunity/affirmative action employer. Our WWW address is [www.ee.duke.edu](http://www.ee.duke.edu)

### Georgetown University Computer Science Department Tenure-Track Faculty Position

The Computer Science Department invites applications for a tenure-track, assistant professor position starting Fall 2002. Applicants should be completing, or have recently completed, a Ph.D. in computer science with research interests in any of these areas: networks, database systems, operating systems, or security; other areas will be considered if the applicant is exceptional. Faculty duties include undergraduate teaching and research, a strong commitment to both is expected. All applicants should include in their application a cover letter describing their professional interests, a curriculum vita, statements of research and teaching interests, and the names and addresses of at least three individuals who will provide letters of recommendation. Please arrange to have such letters sent directly to the Search Committee.

Send all application materials to:

Search Committee  
Computer Science Department  
Georgetown University, 240 Reiss Hall  
Washington, D. C. 20057-1232

Application review will begin 1 January 2001. Applications will be accepted until 1 April 2002. Georgetown University is an Equal Opportunity/Affirmative Action employer.

### Georgia State University Department of Computer Science

The Department of Computer Science of Georgia State University invites applications for anticipated tenure-track positions for assistant professor beginning the Fall semester, 2002. Earned Ph.D. in Computer Science, or a closely related discipline, and an excellent record in publications in computer science are required with preference for extramural funding. Preference is for individual with specialty in graphics, software engineering, human-computer interaction, operating systems, or algorithms. Departmental computing facilities for research and instruction include a departmental network of PCs, UNIX workstations, and a 24-processor Origin 2000 high-performance computer and five laboratories, one with ATM switches for network research and another for hypermedia and visualization research. The departmental computing facilities are supported by two full-time systems programmers.

Applicants should send a letter of application, vita without birth date, but with citizenship status, and three letters of reference and transcripts of all graduate and undergraduate work to:

Chair, Department of Computer Science  
Georgia State University  
University Plaza  
Atlanta, GA 30303-3083  
(or e-mail to: [mfraser@cs.gsu.edu](mailto:mfraser@cs.gsu.edu))

Applications will be accepted until position is filled. Georgia State University is an EEO/AA institution.

### Harvard University Computer Science Assistant Professor

Over the last four years, Harvard's computer science faculty has added six junior and two senior faculty and moved to Maxwell Dworkin, a new building with excellent teaching and research facilities. These changes mark the beginning of a period of extensive growth of the faculty, with a corresponding

increase in the size of the graduate program. The computer science program benefits from its outstanding undergraduate and graduate students, an excellent location, significant industrial support, and substantial support from the Division of Engineering and Applied Sciences.

We invite applications and nominations for a tenure-track faculty position in Computer Systems, at the level of Assistant Professor, to begin in the fall of 2002. We are seeking candidates with interests in databases, operating systems, networking, or computer security with a systems focus.

Candidates should have an outstanding research record and a strong commitment to undergraduate teaching and graduate training. Applicants must have completed a Ph.D. by September 1, 2002. Information about Harvard's faculty, research, and educational programs is available at [http://www.deas.harvard.edu/graduate/computer\\_science](http://www.deas.harvard.edu/graduate/computer_science).

Candidates should send a curriculum vitae, a list of publications, and a statement of research and teaching interests, and should also arrange to have at least three letters of reference sent to:

CS Search Committee  
Division of Engineering and Applied Sciences  
Harvard University  
Maxwell Dworkin 327, 33 Oxford Street  
Cambridge, MA 02138

Applicants may, in addition, include up to three papers representative of their research.

Harvard is an Equal Opportunity/Affirmative Action employer and encourages applications from women and members of minority groups.

Applications will be reviewed as they are received. For full consideration, applications should be received by January 31, 2002.

### Indiana University Computer Science Department Faculty Positions

The Indiana University Computer Science Department anticipates filling several tenure-track faculty positions beginning 2002-2003. Areas of interest are databases, embedded systems and networking. In addition our new, privately endowed, pervasive technology labs will be hiring several senior positions in the areas of graphics, human computer interaction, embedded systems and data mining.

The CS department, which is part of the College of Arts and Sciences, is working cooperatively with our new School of Informatics, which offers a B.S. degree focusing on the

application of information technology to various disciplines and has M.S. programs in Human Computer Interaction, and Bio and Chemical Informatics. Cross-appointments with Informatics are possible in computer science related areas such as data mining and search technologies.

A Ph.D. in Computer Science is required for all CS faculty positions. Applicants must have demonstrated potential for excellence and productivity in research. In addition, a strong contribution to the educational mission of the department is expected.

The department occupies a spacious limestone building with extensive state-of-the-art computing facilities. The attractive wooded campus of Indiana University is located in Bloomington, chosen as one of the most cultural and livable small cities in the US, and only one hour from the Indianapolis airport. To learn more about the department please visit our web site at [www.cs.indiana.edu](http://www.cs.indiana.edu).

Please send a detailed CV and a list of references to:

Faculty Search, Computer Science Department  
Indiana University, Lindley Hall 215  
Bloomington, IN 47405-7104  
email: [search@cs.indiana.edu](mailto:search@cs.indiana.edu)  
Indiana University is an Equal

Opportunity/Affirmative Action Employer. The Computer Science Department strongly encourages applications from women and minorities.

### Iowa State University

Iowa State University has been awarded the NSF Scholarship for Service (SFS) grant from 2001 to 2005. This award provides funding for 10, two-year full undergraduate scholarship recipients and up to 10, two-year masters degrees scholarship recipients, providing technical competence in the area of information assurance and security. Applicants must be a U. S. Citizen, have a GPA of 3.0 or above and must be enrolled in the Information Assurance Program or in one of the six home departments supporting the Information Assurance Program at ISU as of Fall Semester 2002. The recipients will become part of the Federal Cyber Service of information technology specialists whose responsibility is to ensure the full protection of the United States Government information infrastructure. Upon graduation, recipients will work for a federal agency for two years as their Federal Cyber Service commitment.

See [www.isi.iastate.edu/infas.html](http://www.isi.iastate.edu/infas.html) and [www.nsf.gov/home/ehf/](http://www.nsf.gov/home/ehf/) for more information

## Faculty Position in Department of Electrical and Computer Engineering, Wayne State University

The ECE Department at Wayne State University invites applications from qualified candidates for two tenure-track positions in computer systems, including computer architecture, cluster computing, computer networks, mobile computing, and embedded systems. Candidates should have a Ph.D. degree in Computer Engineering, Electrical Engineering, or a related field, demonstrated ability to pursue competitive and funded research, and a strong commitment to teaching. The search is mainly at assistant professor level, but higher rank applicants with exceptional qualifications will also be considered. The appointment will begin in Fall 2002.

Classified as Doctoral/Research Universities-Extensive by Carnegie Classification, WSU is located in the center of the nation's manufacturing industry. The ECE department has strong research activities in the areas of parallel and distributed computing, smart sensors and integrated technologies, optical devices and systems, semiconductor devices and systems, and control systems. Further information is available at [www.ece.eng.wayne.edu](http://www.ece.eng.wayne.edu). Applicants should submit a brief research and teaching plan, a resume, and the names and addresses of at least four references to: Prof. Le Yi Wang, ECE Dept., Wayne State University, Detroit, MI 48202, Tel. 313-577-4715, Email: [lywang@ece.eng.wayne.edu](mailto:lywang@ece.eng.wayne.edu).

Review of applications will begin immediately and continue until the positions are filled. Wayne State University is an Equal Opportunity/Affirmative Action Employer.

## Professional Opportunities

and application guidelines. Deadline for the application is February 15, 2002.

### Ithaca College Mathematics and Computer Science Department Full-time Tenure-eligible Computer Science/Information Systems

Applications are invited for a tenure eligible position starting in Fall 2002. Successful candidate is expected to teach computer science and information system courses at a variety of undergraduate levels. Appointees at the assistant professor level must have a Ph.D. or ABD in Computer Science, Information Systems or a closely related field. Salary is competitive and is commensurate with qualifications and experience. Applicants should send a cover letter and resume to:

Dr. Patricia Woodworth, Chair  
Department of Mathematics and  
Computer Science  
Ithaca College  
Ithaca, New York 14850-7284

Arrange to have three letters of reference sent including at least one that addresses teaching. Review of applications will be in December. Ithaca College is an Affirmative Action/Equal Opportunity employer. Members of underrepresented groups (including people of color, persons with disabilities, Vietnam veterans and women) are encouraged to apply.

### Lehigh University Computer Science and Engineering Department Faculty Openings

The Computer Science and Engineering (CSE) department of Lehigh University, as part of a \$75M program, plans to hire multiple faculty in each of the next several years. This year's areas include computer architecture, digital systems, embedded/mobile systems, networking, compilers, operating systems, software engineering, and distributed systems. Lehigh is ranked among the top 40 national universities and is rated "most selective" by both Baron's and Peterson's guides. The CSE department offers BS, MS and PhD degrees.

Further details about the department and an on-line application are available at <http://www.cse.lehigh.edu/cse-search.html>. Lehigh is an AA/EEO Employer.

### Loyola University Department of Computer Science Chairperson

The College of Arts & Sciences at Loyola University Chicago invites applications for Chairperson of a newly formed Computer Science Department, formerly part of the Department of Mathematical Sciences. Candidates must be qualified to receive an appointment at the rank of tenured Full Professor. Candidates should have a strong record of research, teaching, and administrative effectiveness. Area of specialization in CS is open. This appointment is effective July 1, 2002. Salary will be competitive and commensurate with qualifications. The Department has about 200 undergraduate majors and 200 graduate students, and offers BS and MS degrees in CS, as well as certificate and online programs. The CS Department currently has 12 faculty members who are research active and teach students in all degree programs. Continued growth of the Computer Science Department is a high priority of the College and University. For full consideration, applications should be received by January 15, 2002. Applicants should submit a cover letter that describes their main teaching and research interests, a copy of their Curriculum Vitae, samples of scholarly publications, and the names and contact information (including address, email, and phone numbers) of at least four (4) references to:

Dr. John Pelissero, Chair  
CS Search Committee  
Department of Political Science  
Loyola University Chicago  
6525 N. Sheridan Road  
Chicago, IL 60626, or  
email: [jpeliss@luc.edu](mailto:jpeliss@luc.edu) in HTML, PDF, or PostScript format

Additional information about this position may be obtained by visiting <http://www.cs.luc.edu/chairsearch/>. Loyola University Chicago is an Equal Opportunity/Affirmative Action Institution.

### Michigan Technological University Electrical and Computer Engineering Assistant, Associate, or Full Professor

The Department of Electrical and Computer Engineering invites applications for tenure-track faculty positions at all ranks in Computer Engineering. Areas of special interest include embedded systems, real-time systems, networks and distributed systems; however, exceptionally qualified candidates in other specialties will be considered.

Candidates for these positions must have a doctorate in Computer Engineering, Electrical Engineering, or a closely-related discipline, and a commitment to high quality education at the graduate and undergraduate levels. Candidates for the rank of assistant professor must demonstrate the potential to establish

and maintain a successful research program, whereas candidates for the rank of associate or full professor must have a distinguished record of teaching, research and service. For more information please contact the search committee at [eeesearch@mtu.edu](mailto:eeesearch@mtu.edu) or view a more complete posting at [http://www.ee.mtu.edu/pages/Announcements/faculty\\_positions.html](http://www.ee.mtu.edu/pages/Announcements/faculty_positions.html).

The Department of Electrical and Computer Engineering has, in cooperation with the Department of Computer Science, established a Computer Engineering degree program which began admitting students in the fall of 1999. The Department has 600 undergraduate students, 50 graduate students and 21 faculty. Michigan Technological University has 5700 undergraduate students, 700 graduate students, and the 15th largest undergraduate engineering program in the nation.

The university is located in Michigan's beautiful Upper Peninsula with great opportunities for year-round outdoor recreation.

To apply, send your curriculum vitae, a statement of your teaching and research objectives, and the names, postal and e-mail addresses and phone numbers of at least three references to:

[eeesearch@mtu.edu](mailto:eeesearch@mtu.edu)  
or  
Computer Engineering Search Committee  
Department of Electrical Engineering  
Michigan Technological University  
1400 Townsend Drive  
Houghton, MI 49931 Fax: 906-487-2949

Applications will be accepted until the positions are filled. Michigan Technological University is an Equal Opportunity/Affirmative Action employer and educational institution.

### Michigan Technological University Department of Computer Science Tenure-Track Faculty Position(s)

Applications are invited for one or more tenure-track faculty positions beginning August 2002. Candidates are expected to have a Ph.D. in computer science, computational science and engineering, or a closely related field. Candidates are expected to demonstrate a potential for excellence in teaching and research. Applications from exceptional candidates for more senior positions will be considered. Of particular interest are candidates with research in areas of software engineering, architecture, networks, operating systems, databases, bioinformatics or cheminformatics. Individuals with ongoing research support may be considered for research faculty positions.

Michigan Technological University, designated as one of four Michigan research universities, has over 6,200 students and 400 faculty. The Department has 15 full-time faculty members and B.S., M.S. and Ph.D. programs with excellent students. In addition, the Department has a central role in the interdisciplinary Computational Science and Engineering Ph.D. Program. This program fosters research and teaching in the application of computer science to problems in engineering and the sciences. Enrollment in the undergraduate program exceeds 400 students. Approximately 50 students are enrolled in the graduate program. Computing facilities in the Department include a heterogeneous Unix network of over 100 workstations and servers. The main platforms are Sun Solaris and Linux. Research equipment includes Compaq Alpha and SGI workstations, a 128-processor Beowulf cluster, a 12-node Sun E4500, and Internet 2 access.

Michigan Technological University is located in Houghton in Michigan's scenic Upper Peninsula. Surrounded by Lake Superior and nearby forests, the community offers year-round recreational opportunities. This environment combined with a competitive compensation package and a low cost of living results in an excellent quality of life. Review of applications will continue until the position is filled. Women and minorities are particularly encouraged to apply. Applicants should send a resume, email address, and a list of at least three references to:

Linda M. Ott, Chair  
Department of Computer Science  
Michigan Technological University  
Houghton, Michigan 49931  
[linda@mtu.edu](mailto:linda@mtu.edu)  
(906) 487-2209

For more information see our web page <http://cs.mtu.edu/>. Michigan Technological University is an equal opportunity educational institution/equal opportunity employer.

### Middle Tennessee State University Computer Science Department Two tenure-track positions

Ph.D. required, computer science preferred, rank open. Evidence of excellence in teaching ability and demonstrable potential for research in computer science required. Department offers a MS and a CAC/ABET accredited BS in computer science. Full position announcement available at [www.mtsu.edu/~csdept](http://www.mtsu.edu/~csdept). Review of applications begins December 10, 2001. Send application materials to:

Richard C. Detmer, Chairperson  
Computer Science, Box 48  
Middle Tennessee State University  
Murfreesboro, TN 37132

### NEC Research Institute

The NEC Research Institute (NECI), founded twelve years ago, has as its mission basic research in Computer Science and Physical Sciences underlying future technologies relevant to NEC. The Institute has research programs in theory, machine learning, computer vision, computational linguistics, web characterization and applications, bioinformatics, as well as research activities in Physical Sciences.

NECI is soliciting applications for full time Research Scientists in Computer Science. In addition to enhancing its current research efforts, NECI also plans to establish a group in distributed systems. Although these areas are preferred, NECI will consider exceptional applicants from other areas of computer science.

NECI offers unique and unusual opportunities to its scientists including great freedom in deciding basic research directions and projects; budgets for research, travel, equipment, and support staff that are directly controlled by principal researchers; and publication of all research results in the open literature. The Institute's laboratories are state-of-the-art and include several high-end parallel compute servers. NECI has close ties with outstanding research universities in and outside the Princeton area and with NEC's Central Research Laboratory (CRL) in Japan. Collaborations with university and CRL research groups are encouraged.

Full applications should include resumes, copies of selected publications, names of at least three references, and a two-page statement of proposed research directions. Applications will be reviewed beginning January 1, 2002. NECI is an equal opportunity employer. For more details about NECI, please see <http://www.neci.nj.nec.com>.

Please send applications or inquiries to:  
CS Search Committee, Chair  
NEC Research Institute  
4 Independence Way  
Princeton, NJ 08540  
Email: [compsci-candidates@research.nj.nec.com](mailto:compsci-candidates@research.nj.nec.com)

### New Jersey Institute of Technology Department of Computer Science Department Chair

The Department of Computer Science at New Jersey Institute of Technology invites applications for the position of Department Chair, beginning July 1, 2002. The department is part of the newly formed College of Computing Sciences, which also contains the Department of Information Systems & offers as well a multidisciplinary undergraduate program in Information Technology. The Computer Science Department has 25 tenure-track faculty & shares 20 non-tenure-track faculty with the Department of Information Systems. It offers undergraduate, Master's & doctoral degrees to almost 2500 on-campus & distance students. Departmental research interests include algorithms, artificial intelligence, computational biology & bioinformatics, computer vision, databases, parallel processing, simulation & modeling, software engineering & telecommunications. More information about the department & its academic & research programs can be obtained from the department's home page at [www.cs.njit.edu](http://www.cs.njit.edu). The College's home page is at [www.ccs.njit.edu](http://www.ccs.njit.edu).

With strong backing from the university, the College of Computing Sciences is initiating ambitious plans for growth, in which the Department of Computer Science & its new chair are expected to play significant roles. The Chair reports to the Dean of the College & works closely with the chair of the Department of Information Systems. He/she has primary responsibility for helping the Department of Computer Science to achieve excellence in teaching, research & industrial outreach. Specific responsibilities include: strategic planning, corporate outreach, recruitment & selection of new faculty, management of accreditation activities, building & fostering interdisciplinary initiatives in education & research, managing the Department's finances & budget & overall departmental administration.

A candidate must have an earned doctorate in computer science or a closely related field, leadership experience in an academic or a research environment & a record of teaching, research & service that merits appointment as a tenured full professor. A successful candidate will have excellent intellectual, leadership & interpersonal skills & a high degree of integrity.

New Jersey Institute of Technology has an enrollment of nearly 9000 students, with more than 25% enrolled in the College's programs. It is located in Newark's University Heights, a multi-institutional campus it shares with Rutgers University at Newark, the University of Medicine & Dentistry of New Jersey & Science Park. NJIT is within short driving distance of several other universities, affording ample opportunity for collaborative work.

New Jersey enjoys a very high standard of living & quality of life. Newark is close to New York City, the Jersey Shore, Philadelphia, Atlantic City & the Pocono Mountains, which provide a wide range of cultural and leisure activities.

New Jersey is also a national leader in high-technology industry & research, with major concentrations of pharmaceutical, telecommunications & financial companies & laboratories. These offer excellent opportunities for consulting & industrially-sponsored collaborative research.

Applicants should send a curriculum vitae & letters from at least 3 professional references to:

New Jersey Institute of Technology  
Personnel Box CCS-C  
University Heights  
Newark, NJ 07102-1982

The department's telephone number is 973-596-3366 & email inquiries should be directed to [chair-search@cs.njit.edu](mailto:chair-search@cs.njit.edu). Review of applications will begin immediately & will continue until the position is filled.

NJIT is an equal opportunity, affirmative action, equal access employer & especially encourages applications from minorities, women & persons with disabilities. The university reserves the right to substitute equivalent education and/or experience at its discretion.

### Northeastern University-Boston, Massachusetts College of Computer Science

The College of Computer Science invites applications for one or more tenure-track faculty positions at the Assistant or Associate Professor level beginning in Summer or Fall 2002. Starting dates in Winter or Spring 2002 will be considered. Candidates will be considered from all major disciplines of computer science. A Ph.D. in computer science or related field is required.

The College of Computer Science of Northeastern University maintains a strong research program with significant funding from the major federal research agencies and private industry. It has particular strengths in programming languages and software engineering, distributed computing, cryptography and networks, databases, and artificial intelligence.

The College has a diverse full-time faculty of 23, with approximately 575 undergraduates, 150 Masters students and 35 Ph.D. students. In addition to these degrees in Computer Science, the College offers an innovative B.S. program in Information Science, combining traditional computer science with relevant material from business and the social sciences in an integrated program that focuses on the interaction between information, computers, and people.

Located on the Avenue of the Arts in Boston's historic Back Bay, the College takes advantage of its location to foster collaborations with other institutions in the greater Boston area.

Please send a resume, statement of research interests, and three letters of recommendation to:

Faculty Hiring Committee; College of  
Computer Science  
161 Cullinane Hall,  
Northeastern University  
Boston, Massachusetts 02115

Screening of applications begins immediately and will continue until the search is completed. For further information, send e-mail to [hring@ccs.neu.edu](mailto:hring@ccs.neu.edu) or see <http://www.ccs.neu.edu/hiring>. Electronic submission of documents is encouraged; see the web page for details.

Northeastern University is an Equal Opportunity/Affirmative Action Employer. We strongly encourage applications from women and minorities.

### Northeastern University-Boston, Massachusetts College Of Computer Science Faculty Position in Information Science

The College of Computer Science invites applications for a tenure-track faculty position at the Assistant or Associate Professor level beginning in Summer or Fall 2002. Starting dates in Winter or Spring 2002 will be considered. Candidates are particularly sought with research and/or teaching interests in information systems design and development; databases/data mining; human-computer interaction/CSCW, and organizational/social impacts of information technology. A Ph.D. in information science, information systems, computer science or a related field is required.

The College of Computer Science of Northeastern University maintains a strong research program with significant funding from the major federal research agencies and private industry. The College has a diverse full-time faculty of 23, with approximately 575 undergraduates, 150 Masters students and 35 Ph.D. students. In addition to the degrees in Computer Science, the College offers an innovative B.S. program in Information Science, combining traditional computer science with relevant material from business and the social sciences in an integrated program that focuses on the interaction between information, computers, and people.

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## Professional Opportunities

Located on the Avenue of the Arts in Boston's historic Back Bay, the College takes advantage of its location to foster collaborations with other institutions in the greater Boston area.

Please send a resume, statement of research interests, and three letters of recommendation to:

Faculty Hiring Committee  
College of Computer Science  
161 Cullinane Hall  
Northeastern University  
Boston, Massachusetts 02115

Screening of applications begins immediately and will continue until the search is completed. For further information, send e-mail to [hring@ccs.neu.edu](mailto:hring@ccs.neu.edu) or see <http://www.ccs.neu.edu/hiring>. Electronic submission of documents is encouraged; see the web page for details.

Northeastern University is an Equal Opportunity/Affirmative Action Employer. We strongly encourage applications from women and minorities.

### Northwestern University Department of Computer Science Faculty Recruitment

We seek outstanding junior and senior applicants from a variety of disciplines, with a special interest in systems, broadly construed, and fundamental technologies such as databases. Northwestern has built an excellent core faculty with expertise in AI, graphics, distributed and parallel systems, educational technology, theory and algorithms, robotics, multimedia systems, and design. We have now embarked on a campaign to gain national leadership, building on these core areas, but extending to all areas of computer science. We seek applicants who want to help build a young, dynamic department within a great University strongly supportive of Computer Science, located close to the city of Chicago with all that it has to offer, and in an area with some of the country's finest school districts.

Send applications, including at least 3 references (preferably 5 for senior candidates), by January 31, 2002, to:

Faculty Search Committee  
Northwestern University  
Dept. of Computer Science  
1890 Maple Ave.

Evanston, IL, 60201 or by email to

[facultysearch@cs.northwestern.edu](mailto:facultysearch@cs.northwestern.edu)

Northwestern University is an affirmative action/equal opportunity employer. Hiring is contingent upon eligibility to work in the United States. Applications by minorities and women are particularly encouraged.

### Northwestern University Department of Computer Science Department Chair Search

We seek a strong and proven researcher and manager to serve as Chair. Applicants from all areas of computer science will be considered. Northwestern has built an excellent core faculty with expertise in AI, graphics, distributed and parallel systems, educational technology, theory and algorithms, robotics, multimedia systems, and design. We have now embarked on a campaign to gain national leadership, building on these core areas, but extending to all areas of computer science. We seek applicants who want to help mold a young, dynamic department within a great University strongly supportive of Computer Science, located close to the city of Chicago with all that it has to offer, and in an area with some of the country's finest school districts. Send applications, including at least 5 references, by January 31, 2002, to:

Faculty Search Committee  
Northwestern University  
Dept. of Computer Science  
1890 Maple Ave.

Evanston, IL, 60201 or by email to

[facultysearch@cs.northwestern.edu](mailto:facultysearch@cs.northwestern.edu)

Northwestern University is an affirmative action/equal opportunity employer. Hiring is contingent upon eligibility to work in the United States. Applications by minorities and women are particularly encouraged.

### The Ohio State University Eminent Scholar in Computer Networking and Communications

The Ohio State University invites applications for the position of Ohio Eminent Scholar in Computer Networking and Communications. Awarded recently by the Ohio Board of Regents, this position comes with a tenured, full professorship in the Department of Computer and Information Science and the Department of Electrical Engineering, in addition to an attractive compensation package. Only 17 Ohio Eminent Scholar positions have been awarded in the history of the Ohio State University prior to this award.

The successful candidate is expected to have made outstanding scholarly contributions to networking and communications. Specialty areas of particular interest to us include (but are not limited to) wireless networking and mobile computing, internet distributed architectures, optical networks, network security

and dependability, communication theory, coding theory, wireless communications, resource allocation, and multiple access techniques. Both departments have vibrant research programs in networking and communications. The candidate will have the opportunity not only to collaborate with other faculty, but also with persons from places in Central Ohio such as ITEC-Ohio, OSC, Qwest and Lucent, with whom the departments have had good relationships over the years.

Interested persons are invited to send a resume, by e-mail to [fsearch@cis.ohio-state.edu](mailto:fsearch@cis.ohio-state.edu) or by mail to:

Chair, EE/CIS  
Ohio Eminent Scholar Search Committee  
Department of Computer and Information Science

The Ohio State University  
2015 Neil Ave  
Columbus, OH 43210-1277

Review of applications will begin immediately and continue until the position is filled. For additional information please see <http://www.cis.ohio-state.edu>.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer.

### The Ohio State University Department of Computer and Information Science

The Department of Computer and Information Science invites applications for at least six tenured or tenure-track positions. Areas of primary interest include, but are not limited to, artificial intelligence (including speech and language processing, vision, and machine learning), graphics (including visualization, computer animation, geometric modeling and meshing), human-computer interaction, networking (including mobile computing and network security/dependability), software engineering (including component-based software, formal methods, and programming languages), and systems (including operating systems, data-intensive computing, grid computing, network-based computing, parallel systems, distributed computing, and scientific computing).

Appointments at all ranks will be considered. Applicants for an assistant professor position should hold or be completing a Ph.D. in computer science or a closely related field, and have a commitment to excellent research and quality teaching. Applicants for a senior position should also demonstrate a strong record

of external funding and impact on their field.

The department maintains active collaborative relationships with the Ohio Supercomputer Center, Advanced Computing Center for the Arts and Design, Cognitive Science Center, and many other centers and departments in the university.

To apply, please send a curriculum vita, along with a cover letter, by e-mail to [fsearch@cis.ohio-state.edu](mailto:fsearch@cis.ohio-state.edu) or by mail to:

Chair, Faculty Search Committee  
Department of Computer and Information Science  
The Ohio State University  
2015 Neil Avenue, DL395  
Columbus, OH 43210-1277

Review of applications will begin immediately and will continue until the positions are filled. For additional information please see <http://www.cis.ohio-state.edu>.

The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, and individuals with disabilities are encouraged to apply.



Applications are invited for **seven** full-time tenure-track positions, at the **Assistant Professor** level, commencing July 1, 2002, or as soon as possible thereafter. These positions are part of the Computer Science Development Plan that has been approved and funded by the Manitoba Provincial Government. Minimum qualifications are a PhD in Computer Science or equivalent, complete or completed at time of appointment, and evidence of strong research and teaching potential in Computer Science. A Faculty of Science startup research grant will be awarded to all newly appointed faculty members.

For two of these positions, we are seeking expertise in the areas of Databases and/or Software Engineering. For the remaining positions, we are seeking expertise in the areas of artificial intelligence, human-computer interaction, programming languages and compilation, operating systems, networks, and parallel systems. In addition, outstanding candidates in other areas, particularly recently emerging areas such as multimedia, mobile computing, and web-based computing will be considered. Duties will include undergraduate and graduate teaching and supervision, research, and service-related activities.

The Department currently has 24 full-time tenure-track faculty members plus a number of teaching appointments, and offers a full range of both undergraduate and graduate programmes, including cooperative programmes. We currently have over 45 graduate students.

The Department is a well-established one that has recently entered into a major expansionary phase. The Computer Science Department Development Plan is a new initiative, funded by the Provincial Government of Manitoba. The Plan provides \$3.6 million of additional, special funding over four years for the expansion of the Computer Science department. The Plan includes ten new faculty positions, as well as new support staff positions, several new undergraduate teaching laboratories, and significant upgrading of infrastructure. In addition, a new \$45M Engineering and Information Technology Complex is being planned, which will house the teaching and research activities of the department. Current and planned departmental facilities include a parallel computing lab, a software development and testing lab, an advanced networking lab, and a parallel systems lab. Large-scale parallel computing access is also available via CA\*net 3. The Department provides excellent technical support for both teaching and research.

Winnipeg has a great deal to offer, both culturally and recreationally, with a number of professional and ethnic arts groups, professional sports teams, outstanding restaurants, and many opportunities nearby for all types of outdoor activities in all seasons. The Winnipeg housing market is one of the most favourable in Canada to the home buyer.

This is an excellent opportunity for individuals with outstanding research potential and a commitment to excellence in teaching to get in on the ground floor of an exciting, expanding department. *The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples, and persons with disabilities. In accordance with Canadian immigration requirements priority consideration will be given to Canadian citizens and permanent residents.*

Further information concerning the Department and the University may be obtained from the Department's website and the University's website.

Applicants should send a *curriculum vitae* and the names of three referees to the address below. Qualified women are particularly encouraged to apply. **Consideration for the positions will commence immediately and will continue until June 30, 2002, or until the positions are filled.**

Chair of Search Committee  
Department of Computer Science  
University of Manitoba  
Winnipeg, Manitoba R3T 2N2  
Canada  
E-mail: [search@cs.umanitoba.ca](mailto:search@cs.umanitoba.ca)  
Telephone: (204) 474-8313  
Fax: (204) 474-7609  
Website: [www.cs.umanitoba.ca](http://www.cs.umanitoba.ca)

## Professional Opportunities

### Penn State Harrisburg Assistant/Associate Professors in Computer Science

Multiple tenure-track positions Assistant/Associate Professor in Computer Science at Penn State Harrisburg, beginning Spring and Fall 2002. Seeking database, programming languages, software engineering/software design, computer architecture, operating systems, genetic algorithms, artificial intelligence, or computer graphics experience/research interests. Ph.D. preferred, ABD considered. Candidates evaluated on teaching and professional experience. Salary level commensurate with qualifications and experience. Teach in B.S. and M.S. programs in computer science. Expected to pursue scholarly research and publication, participate in curricular development and University and professional service activities, advise undergraduate and graduate students and serve on graduate level degree committees. Consult [www.cl.psu.edu](http://www.cl.psu.edu) and [www.hbg.psu.edu/hbg/positions/](http://www.hbg.psu.edu/hbg/positions/) for further information. Application review will begin immediately and continue until positions filled. Submit letter of application, curriculum vitae, and the names, addresses and phone numbers of at least three references to:

Chair, Computer Science Search Committee  
c/o Mrs. Dorothy J. Guy, Manager Human Resources  
Penn State Capital College  
Box CRA, 777 West Harrisburg Pike  
Middletown, PA 17057-4898  
Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.

### The Pennsylvania State University Department of Computer Science and Engineering

Applications are invited for several tenure-track faculty positions at all ranks. Outstanding candidates in all areas of computer science and engineering will be considered. Areas of particular focus are Bioinformatics, Computer Graphics & Vision, Database & Multimedia Systems, Distributed Systems, Embedded Systems, Networks, and Security. We will consider multiple hires in these targeted areas. Additional coordinated hiring with the School of Information Sciences and Technology (IST) is possible in areas such as Databases, Internet Computing, Mobile Computing, Security/Privacy, and User Interfaces.

Applicants should hold a Ph.D. in computer science, computer engineering, or a closely related field and should be committed to excellence in both research and teaching. Support will be provided to the successful applicants for establishing their research programs. In specific areas such as Embedded Systems additional start-up funding can be provided by generous support from the State of Pennsylvania through the Pittsburgh Digital Greenhouse.

The Department of Computer Science and Engineering (CSE) has 24 collegial, tenure-track faculty and the university is committed to growing the faculty ranks over the next several years. The Department offers a graduate program with about 90 Masters students and 90 Ph.D. students and enrollment controlled undergraduate programs in computer science and computer engineering. The Department has state-of-the-art computer equipment with excellent system and network support, and has close ties with other university departments and their computing and networking facilities. In particular, there are well-equipped research labs in areas including microsystems design and VLSI, programming languages and compilers, computer vision and robotics, virtual environments, high performance computing and bio-informatics. By Fall 2003, the Department will move into a new building housing both CSE and IST.

Penn State is a major research university and in recent years has ranked first in the nation among public universities in industry-sponsored research. US News and World Report consistently ranks PSU's College of Engineering undergraduate and graduate programs in the top 15 of the nation. The university is located in the beautiful college town of State College, a town of about 40,000 inhabitants in the center of Pennsylvania with a variety of outdoor recreational activities nearby. The university offers outstanding events from collegiate sporting events to fine arts productions. Many major population centers on the east coast (New York, Philadelphia, Pittsburgh, Washington DC, Baltimore) are only a few hours drive away and convenient air services to several major hubs are operated by three major airlines out of State College.

Applications should be received by January 31, 2002 to receive full consideration. To apply by electronic mail, send your resume (including curriculum vitae and the names and addresses of at least three people willing to write a letter of recommendation) as a postscript or pdf file to [recruiting@cse.psu.edu](mailto:recruiting@cse.psu.edu) or by post to:

Chair, Faculty Search Committee  
The Pennsylvania State University  
Department of Computer Science and  
Engineering  
220 Pond Laboratory, BOX CRN  
University Park, PA 16802-6106 USA  
For more information about the  
Department of CSE at PSU, see  
<http://www.cse.psu.edu>.

PSU is an Equal Opportunity / Affirmative Action Employer. Women and minorities are encouraged to apply.

### Polytechnic University Shustek Chair and Faculty Positions

The Computer and Information Science Department at Polytechnic University invites nominations and applications for the Leonard Shustek endowed chair. We seek candidates at the Associate or Full Professor level with active and successful research programs in distributed systems, mobile computing or computer security. Exceptional candidates in other areas will also be considered. The Chair will be expected to maintain an innovative research program that will attract outstanding students and faculty, to help provide leadership for the department's research activities, and to acquire substantial external funding.

In addition, the department expects to have openings for faculty at all levels. Areas of particular interest include architecture, bioinformatics, database systems, distributed computing, operating systems, networking, and software engineering, but strong candidates in other areas will also be considered. Candidates must be outstanding researchers and teachers and must have a PhD by the appointment date.

Polytechnic University ("Brooklyn Poly") is located in Brooklyn, New York, 10 minutes from lower Manhattan, close to major companies in the financial, telecommunications, and computer industries, as well as a myriad of cultural attractions. Current active areas of research in the department include algorithms, computational geometry, database systems, graphics and visualization, information security, machine learning, multimedia and computer vision, software engineering, web information retrieval, and wireless information systems. Faculty research is supported by numerous NSF grants, including six current or recent CAREER grants, and by funding from other federal agencies, New York State, and industry. The CIS department enjoys close working relationships with the Electrical and Computer Engineering Department and the Center for Advanced Technology in Telecommunications. The department offers BS, MS, and PhD degrees.

For more information, see  
<http://cis.poly.edu> and <http://www.poly.edu>.

Qualified applicants should send their curriculum vitae and names of three references (six for Shustek Chair) to:

Head of CIS Search Committee  
c/o Human Resources Polytechnic  
University  
Six MetroTech Center  
Brooklyn, NY 11201 or by  
e-mail to [facsrch@morph.poly.edu](mailto:facsrch@morph.poly.edu).

Polytechnic University is an equal opportunity employer. AA/EOE.

### Portland State University Positions in Computer Science

Portland State University anticipates one or more tenure-track, nine-month faculty positions at all levels to begin Fall 2002. Applicants for senior positions are expected to have a nationally recognized research program and to have demonstrated the ability to generate external funding; applicants for junior positions must show potential for future external support. The department is primarily interested in faculty in the areas of systems/networking, software engineering, databases, programming languages, and theory, but excellent applicants in all areas will be considered.

The minimum qualifications for the position include an earned Ph.D. The faculty member will teach undergraduate and graduate classes; develop program, course and laboratory resources in computer science; maintain scholarly activity in funded research and publications; provide professionally related public service; advise students, and support University activities through committee service.

The department currently has nineteen faculty and offers a CSAB accredited B.S., an M.S., and a Ph.D. in Computer Science. Collaboration with industry colleagues and with faculty at nearby institutions such as the Oregon Graduate Institute and Oregon Health Sciences University is encouraged. Our low teaching loads give faculty time to maintain funded research programs and to collaborate with local industry. The department currently serves approximately 500 undergraduates and 100 graduate students. Further information about the department is available at <http://www.cs.pdx.edu>.

Portland State University is located in downtown Portland, Oregon. Portland's "Silicon Forest" is one of the major software/hardware development centers in the country. Within the Portland metropolitan area are over 200 hardware and software companies, including the world headquarters of Tektronix, In-Focus, and Mentor Graphics, major R&D sites of Oracle and Informix, the

former Sequent Corp., now a division of IBM, and the site of the world's largest campus of Intel, along with many other companies ranging from major corporations to software startups. The University is approximately one hour from magnificent beaches and from year-round skiing.

Review of applications will begin January 15, 2002 and will continue until the positions are filled. Please send a statement of research and teaching interests, a vita, and the names of three references to:

Faculty Search Committee  
Department of Computer Science  
Portland State University  
PO Box 751  
Portland, OR 97207-0751  
Portland State University is an equal opportunity/affirmative action institution.

### Purdue University Department of Computer Sciences Tenure-Track Positions

The Department of Computer Sciences at Purdue University invites applications for tenure-track positions beginning August 2002. Positions are available at the assistant professor level; senior positions will be considered for highly qualified applicants. Applications from outstanding candidates in all areas of computer science will be considered. Areas of particular interest include security, networking and distributed systems, scientific computing, and software engineering.

The Department of Computer Sciences offers a stimulating and nurturing academic environment. Thirty-five faculty members have research programs in analysis of algorithms, bioinformatics, compilers, databases, distributed and parallel computing, geometric modeling and scientific visualization, graphics, information security, networking and operating systems, programming languages, scientific computing, and software engineering. The department implements a strategic plan for future growth which is strongly supported by the higher administration. This plan includes a new building expected to be operational in 2004 to accommodate the significant growth in faculty size. Further information about the department is available at <http://www.cs.purdue.edu>.

Applicants should hold a Ph.D. in Computer Science, or a closely related discipline, and should be committed to excellence in teaching and have demonstrated strong potential for excellence in research. Salary and benefits are highly competitive. Special departmental and university initiatives are available for junior faculty. Candidates should send a curriculum vitae, a statement of career objectives, and names and contact information of at least three references to:

Chair, Faculty Search Committee  
Department of Computer Sciences  
Purdue University  
West Lafayette, IN 47907-1398  
Applications are being accepted now and will be considered until the positions are filled. Inquiries may be sent to [fac-search@cs.purdue.edu](mailto:fac-search@cs.purdue.edu).

Purdue University is an Equal Opportunity/Affirmative Action employer. Women and minorities are especially encouraged to apply.

### Purdue University School of Electrical and Computer Engineering

The School of Electrical and Computer Engineering seeks outstanding candidates in computer engineering for research and teaching in the following areas: artificial intelligence, compilers, computer graphics, computer architecture, computer networks, distributed computing, multimedia systems, operating systems, software engineering, VLSI and CAD. Strong candidates in all areas of computer engineering are encouraged to apply. Openings are for tenure-track faculty at all levels.

Send a resumé, including a statement of research and teaching interests and a list of at least three references, to:

Head, School of Electrical and Computer  
Engineering  
Purdue University, 1285 EE Building  
West Lafayette, IN 47907-1285

Applications will be considered as they are received. Purdue University is an Equal Opportunity/Affirmative Action employer.

### Purdue University School of Electrical and Computer Engineering Head

Purdue University invites applications and nominations for the position of Head of the School of Electrical and Computer Engineering. Purdue's new strategic plan calls for preeminence in Engineering. The President and his administration have announced major new investments in Engineering. The School of Electrical and Computer Engineering seeks a dynamic head to work with the new administration - President, Provost, and Dean of Engineering - to lead the School to a new level of excellence and visibility.

The Head must qualify for an appointment as a tenured full professor in the School of

Electrical and Computer Engineering; have a distinguished record of achievement; exhibit strong qualities of leadership and ability to work with diverse groups; and have the vision and skills to lead the School in its goals of preeminence in research, education, and engagement.

The School of Electrical and Computer Engineering has 70 faculty members, 62 staff members, over 1100 undergraduates, and over 450 graduate students. The School offers BSEE, BSCmpE, Masters, and Ph.D. degrees. Its educational and research programs span the fields of electrical and computer engineering. Both the graduate and undergraduate programs consistently rank in the top 10 in the U.S. Sponsored research expenditures in FY 2000 exceeded \$14.5M. Applicants should provide a full professional resume, a statement of interest and vision, and the names and addresses of at least five references. The Search Committee will begin reviewing applications on December 1, 2001 and will continue until the position has been filled. The committee encourages nominations and applications from candidates who are members of underrepresented groups. Send applications and nominations to:

Professor Leah H. Jamieson, Chair  
Electrical and Computer Engineering  
Head Search Committee  
Purdue University, 1285 Electrical  
Engineering Building  
West Lafayette, IN 47907-1285  
765-494-3653  
[ecesrch@ecn.purdue.edu](mailto:ecesrch@ecn.purdue.edu)

Information about the School may be found at <http://www.purdue.edu/ECE>. Purdue University is an Affirmative Action/Equal Opportunity Employer.

### Rensselaer Polytechnic Institute Department of Electrical, Computer and Systems Engineering Tenure-Track Position in Computer Engineering

The Electrical, Computer and Systems Engineering (ECSE) Department invites applications for several tenure-track faculty positions in the area of Computer Engineering. While we are looking primarily for Assistant Professors, appointment of candidates with outstanding academic or industrial research experience and leadership at the Associate and Full Professor levels will also be considered. All areas of computer engineering are of interest. In particular, the department has special needs in computer networking, computer architecture, operating systems, VLSI design, digital and mixed signal electronics design, wireless technology, multimedia and mobile computing.

The ECSE Department offers programs in Electric Power Engineering, Electrical Engineering, and Computer and Systems Engineering. ECSE has 40 faculty, 900 undergraduates, and over 200 graduate students. Our major strengths are in electric power systems, microelectronics technology and design, control and automation, power electronics, digital signal and image processing, computer communication networks, plasma engineering and electromagnetics. We are seeking faculty who bring innovative approaches to research and are dedicated to providing a high quality learning experience for our students. New faculty will receive special career start-up arrangements including summer support, equipment, graduate student support and reduced teaching loads to encourage the development of successful research and teaching programs.

A doctorate in Computer Engineering, Computer Science, Electrical Engineering, or a related field is required. Letters of application and resumes (including a list of references) should be directed to:

Dr. Kenneth Connor, Chair  
Electrical, Computer and Systems  
Engineering  
Rensselaer Polytechnic Institute  
Troy, NY 12180-3590  
(518) 276-8552  
[connor@rpi.edu](mailto:connor@rpi.edu)

For more information, see ECSE's webpage (<http://www.ecse.rpi.edu>) or contact Dr. Connor directly.

Rensselaer is an affirmative action/equal opportunity employer and specifically encourages applications from women and underrepresented minority groups.

### San José State University Computer Engineering Department

San José, California  
In the heart of Silicon Valley

The Computer Engineering Department at San José State University invites applications for six tenure-track faculty positions at the level of assistant, associate or full professor. Of particular interest are candidates with a background in software engineering and computer hardware (For detailed information please visit the department web page at: <http://www.engr.sjsu.edu/cmpe>)

Two positions are specifically intended to increase the department's international exposure. For these positions significant post-doctoral academic experience from abroad is required.

The department is also interested in applications for positions as Visiting Professor.

(cont'd)

## Professional Opportunities

The San José State University Computer Engineering Department is a leading provider of engineering professionals to Silicon Valley's high-tech industry. Offers a nationally ranked undergraduate degree program in computer engineering. Is developing a new offering in software engineering. Provides faculty members with opportunities for close collaborative ties with industry and research partners in Silicon Valley.

The department offers Bachelors (ABET accredited) and Masters degrees and serves more than 1400 undergraduates and 200 graduate students.

The candidates must have an earned Doctorate in Computer Engineering, Computer Science, Electrical Engineering or in a closely related field. Industrial experience is desirable. Employment is contingent upon proof of eligibility to work in the United States at the time employment commences. The university may be able to assist in the process of gaining the necessary employment eligibility.

For full consideration, candidates should submit a letter of intent along with a resume including names, addresses and phone numbers of three references to:

The Search Committee Chair  
Computer Engineering Department  
San José State University  
One Washington Square  
San José, CA 95192-0180  
Tel. (408) 924-4150  
e-mail: [cmpe@email.sjsu.edu](mailto:cmpe@email.sjsu.edu).

### Smith College

#### Clare Boothe Luce Assistant/Associate Professor Of Computer Engineering

Smith College invites applications and nominations for the Clare Boothe Luce Assistant/ Associate Professor of Computer Engineering. This will be a tenure-track position jointly held in the Picker Engineering Program and the Department of Computer Science. Successful candidates will be instrumental in structuring and launching the new engineering curriculum and be able to teach in the general area of computer/electrical engineering. They will also be expected to sustain nationally respected research programs areas such as: hardware design, computer architecture, system security, control systems, digital signal processing, systems engineering, networks, VLSI design, robotics, nanotechnology, and biochips. This position is funded, in major part, by the Clare Boothe Luce Foundation. As a result, applicants must be U.S. citizens, female, and hold a Ph.D. in an appropriate field.

We are especially soliciting applications from scholars who will develop innovative approaches to engineering education that capitalize on an intimate liberal arts environment. Smith College, consistently ranked as one of the nation's top liberal arts colleges, is the first women's college to offer a major in engineering. A rigorous program of study will lead to a B.S. degree in Engineering Science. ABET accreditation will be sought. Send a curriculum vitae, list of five references and personal career statement that includes the candidates philosophy regarding the teaching of engineering in a liberal arts environment to:

Chair  
Computer Engineering Search Committee  
Picker Engineering Program  
51 College Lane, Smith College  
Northampton, MA 01063

Applications from members of underrepresented groups are especially welcomed. Review of applications is ongoing, and interviews will commence February 1, 2002. The position will remain open until a suitable candidate is identified. Smith College is an equal opportunity employer encouraging excellence through diversity.

### Southern Methodist University (SMU)

#### Department of Computer Science and Engineering Faculty Positions

The Computer Science and Engineering Department at Southern Methodist University (SMU) invites applications for several faculty positions beginning Fall 2002. Individuals with experience and research interests in all areas of computing are encouraged to apply. Priority will be given to individuals with expertise in Computer Engineering or Software Engineering. Candidates at all ranks will be considered. The successful candidates must have or expect to have a Ph.D. in Computer Science, Computer Engineering, or a closely related area by date of hire, and must demonstrate a strong commitment to excellence in teaching and research. The CSE Department resides within the School of Engineering and offers BS, MS, and Ph.D. degrees in Computer Science and in Computer Engineering, as well as MS in Software Engineering. The department currently has 12 faculty members with research concentrations in computer arithmetic, computer networks, database systems, mobile computing, parallel processing, software engineering, telecommunication software and systems, and related areas. Additional information may be found at: [www.engr.smu.edu/cse](http://www.engr.smu.edu/cse)

The Dallas/Fort Worth area, one of the top three high-tech industrial centers in the country, has the largest concentration of telecommunications corporations in the US, providing abundant opportunities for industrial research cooperation and consulting. Dallas/Fort Worth is a multifaceted business and engineering community, offering exceptional museums, diverse cultural attractions, and a vibrant economy.

Interested individuals should send a complete resume, the names of three references, and a statement of research and teaching interests to:

Beth Minton, Coordinator  
Department of Computer Science and Engineering  
SMU  
Dallas, TX 75275-0122  
Or via e-mail to: [beth@engr.smu.edu](mailto:beth@engr.smu.edu)

The search committee will begin its review of the applications on or about November 1, 2001. The search will continue until all positions are filled. SMU will not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. SMU is committed to nondiscrimination on the basis of sexual orientation.

### Southwest Texas State University

#### Computer Science Department Senior-level, tenure track faculty

Applications are invited for a senior-level tenure-track position to begin Fall 2002. Applicants must have an earned doctorate in Computer Science or Computer Engineering or an equivalent degree. A sustained record of excellence in teaching, research, and service is essential.

While applications in all areas of Computer Science are invited, the department is particularly interested in hiring in the areas of software engineering, operating systems, database, and computer security.

The Bachelor of Science program in Computer Science is ABET accredited, the master's program is thriving, and a proposal for a Ph.D. in Computer Science is currently being reviewed.

SWT is an AA/EEO employer. Women and minorities are encouraged to apply.

For more information and to apply, see <http://www.cs.swt.edu/recruitment/>

### Syracuse University

#### Department of Electrical Engineering and Computer Science

The Department of Electrical Engineering and Computer Science invites applications for anticipated tenured/tenure-track faculty positions in the following areas: Communications and Signal Processing, Complex and Intelligent Systems, RF/Microwave Electronics and Sensors, and Systems & Information Assurance. We are particularly interested in candidates whose research interests span more than one of these areas. For all positions, a doctorate in a field appropriate to the area is required at the time of employment.

Application deadline is January 15, 2002 or until the positions are filled, and the starting date is August 19, 2002, or as soon as possible thereafter. Submit a curriculum vitae, copies of selected publications, names, addresses (postal and e-mail), and telephone numbers of at least three references to:

Faculty Search Committee  
Department of Electrical Engineering and Computer Science  
121 Link Hall  
Syracuse University  
Syracuse, NY 13244-1240  
USA

Please indicate the position for which you are applying. Please see: <http://eecs.syr.edu/position.html> for more information. *Syracuse University is an Affirmative Action/Equal Opportunity Employer. Qualified individuals from underrepresented groups are urged to apply.*

### Temple University

#### Department of Computer and Information Sciences

##### Multiple Tenure-track Faculty Positions

As part of a major expansion in the Sciences, the College of Science and Technology at Temple University is recruiting for multiple faculty positions at the level of Full, Associate, or Assistant Professor in the Center for Information Science and Technology and the Department of Computer and Information Sciences. All tenure-track positions require a Ph.D. or equivalent degree in Computer and Information Sciences or related areas at the time of employment. Successful candidates are expected to have significant research programs and to provide effective instruction at both undergraduate and graduate levels. Applicants for Associate Professor or Professor positions are expected to have a substantial publications record and an externally funded research program.

Areas of interest include bioinformatics, databases, data mining, collaborative technologies, networks, distributed and mobile computing and programming languages. Strong candidates in other areas of Computer and Information Sciences are encouraged to apply. We especially encourage applications from candidates whose research is

interdisciplinary in nature. Salaries for new faculty are highly competitive, and substantial resources have been allocated for startup funding.

The Department of Computer and Information Sciences has 22 tenure-track faculty members with strengths in broad areas of Computer and Information Sciences and offers B.S. M.S. and Ph.D. degrees in basic and multidisciplinary areas. Temple University, a Carnegie Research I Institution, located in Philadelphia, Pennsylvania, is part of the Pennsylvania Commonwealth System of Higher Education and serves more than 30,000 students.

Applicants should provide curriculum vitae, a bibliography, a statement of recent achievement and research goals, four letters of reference, three representative publications, and a statement of teaching philosophy to the address below.

Prof. Zoran Obradovic  
Chair, Faculty Search Committee Center for Information Science and Technology and Department of Computer and Information Sciences  
303 Wachman Hall (038-24)  
Temple University, 1805 N. Broad Street  
Philadelphia, PA 19122-6094

Faculty applications received by December 1, 2001 will be given full consideration.

Temple University is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from women and minorities. Additional information about the University and the Department and the Information Science and Technology Center is available at [www.temple.edu](http://www.temple.edu), [www.cis.temple.edu](http://www.cis.temple.edu), [www.ist.temple.edu](http://www.ist.temple.edu)

### Temple University

#### Center for Computer Science and Applied Mathematics

##### Director

The College of Science and Technology at Temple University is recruiting for a Director of the Center for Computer Science and Applied Mathematics. This position carries a tenure/ tenure-track appointment in the Department of Computer and Information Sciences and requires a Ph.D. or equivalent degree in Computer and Information Sciences or related areas at the time of employment. The successful candidate is expected to have national and international recognition, a substantial publication record and a significant externally funded research program.

Areas of interest include databases, data mining, collaborative technologies, networks, distributed and mobile computing and programming languages. Strong candidates in other areas of Computer and Information Sciences are encouraged to apply. We especially encourage applications from candidates whose research is interdisciplinary in nature. Salaries for new faculty are highly competitive, and substantial resources have been allocated for startup funding.

The Department of Computer and Information Sciences has 22 tenure-track faculty members with strengths in broad areas of Computer and Information Sciences and offers B.S. M.S. and Ph.D. degrees in basic and multidisciplinary areas. Temple University, a Carnegie Research I Institution, located in Philadelphia, Pennsylvania, is part of the Pennsylvania Commonwealth System of Higher Education and serves more than 30,000 students.

Applicants should provide curriculum vitae, a bibliography, a statement of recent achievement and research goals, four letters of reference, three representative publications, and a statement of teaching philosophy to the address below.

Prof. Zoran Obradovic  
Chair, Director Search Committee Center for Computer Science and Applied Mathematics and Department of Computer and Information Sciences,  
303 Wachman Hall (038-24)  
Temple University, 1805 N. Broad Street  
Philadelphia, PA 19122-6094

Faculty applications received by December 1, 2001 will be given full consideration.

Temple University is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from women and minorities. Additional information about the University and the Department and the Information Science and Technology Center is available at [www.temple.edu](http://www.temple.edu), [www.cis.temple.edu](http://www.cis.temple.edu), [www.ist.temple.edu](http://www.ist.temple.edu).

### Texas A&M University

#### HEAD-Department of Computer Science

Texas A&M University invites nominations and applications for the position of Head of the Department of Computer Science. Texas A&M has long enjoyed national leadership status in engineering education. Today, the Dwight Look College of Engineering is one of the largest and best endowed in the nation, and it ranks among the top institutions in every significant national poll, including #11 in the recent US News and World report ranking.

The Department of Computer Science is one of the fastest-developing departments in the College. In recent years, it has built a

strong national reputation based on the quality of its faculty and programs; recently, its undergraduate computer engineering program ranking has climbed to #17. The department offers B.S., Master's and Ph.D. degrees in computer science and, jointly with the Department of Electrical Engineering, in computer engineering. The department has 28 tenured or tenure-track faculty, including five NSF PYI/CAREER award recipients, 10 lecturers, and roughly 300 graduate and 1300 undergraduate students. More information is available at <http://www.cs.tamu.edu>.

The Department Head will have the opportunity to guide the department through a period of major expansion. The Department has significant resources, including multiple open faculty positions and a \$4.3M endowed chair. The University's recently completed Vision 2020 strategic plan includes an emphasis on Information Technology and on multidisciplinary initiatives such as Bioinformatics; through the latter, the department has been awarded multiple positions split between Computer Science and other departments in the Life Sciences.

We are looking for an innovative thinker with a strategic vision for guiding the future growth of the department. Candidates should possess proven leadership and administrative skills, and an established reputation as a scholar consistent with an appointment to the rank of Professor of Computer Science with tenure. They should be committed to fostering current and future multi-disciplinary research and education initiatives as well as to strongly supporting existing departmental research strengths in artificial intelligence, bioinformatics, computational science, computer-aided design, computer-human interaction, computer engineering, digital libraries, distributed systems, graphics, hardware/software co-design, machine learning, mobile computing, parallel computing, quantum computing, real-time systems, robotics, software engineering, and theoretical computer science. More information is available at <http://www.cs.tamu.edu>.

Letters of application should include a full curriculum vitae and the names and addresses of at least five references. Applications will be accepted until the position is filled; screening will begin immediately. Nominations or applications should be sent to:

Computer Science Department Head  
Search Committee  
Department of Computer Science  
Texas A&M University  
College Station, TX 77843-3112  
e-mail: [head\\_search@cs.tamu.edu](mailto:head_search@cs.tamu.edu)

Applications from minority and women candidates are especially encouraged. Texas A&M University is an affirmative action/ equal opportunity employer committed to diversity. The department welcomes applications from academic couples seeking to co-locate.

### Texas A&M University

#### Department of Computer Science Bioinformatics Faculty Positions

The Department of Computer Science at Texas A&M University invites applications for several tenure-track faculty positions in bioinformatics, including one position shared with the Department of Biochemistry and Biophysics and one shared with the Department of Plant Pathology and Microbiology. These positions are part of a campus-wide initiative in the Life Sciences to develop and promote interdisciplinary research and education in this rapidly developing area. Successful candidates will be expected to establish a nationally recognized research program in bioinformatics, as well as to foster and contribute to cross-disciplinary interactions with other groups interested in bioinformatics on campus.

Texas A&M University is a well-endowed institution, and has a diverse and vibrant academic community. Texas A&M enjoys a strong tradition of research excellence in agriculture and the life sciences, including a variety of ongoing projects in plant, animal, and microbial genomics, ranging from mapping and sequencing to functional genomics, proteomics, and structural genomics. These activities are supported by a variety of labs/centers (NMR, Protein Chemistry, Electron Microscopy, Gene Expression Profiling, BAC Cloning, etc.), and existing NIH-funded training grants in areas related to bioinformatics. Life sciences research on campus is supported by a variety of advanced computational resources, ranging from large-scale Linux clusters to several high-performance SGI and HP multi-processors located in research labs and in the campus supercomputing center.

The administrative home for all positions, except the shared Plant Pathology position, will be in the Department of Computer Science. Candidates should have a Ph.D., but the field is not restricted to Computer Science. Outstanding candidates at all levels will be considered. Senior candidates with exceptional records may be considered for the \$4.3M College of Engineering Endowed Chair in Computer Science. Candidates should have a demonstrated ability to perform independent research appropriate to the rank being sought.



## Professional Opportunities

Applicants should send a statement of research and teaching interests, a complete curriculum vitae, and have three letters of recommendation (five for senior positions) sent by email to [bioinformatics\\_search@cs.tamu.edu](mailto:bioinformatics_search@cs.tamu.edu) or by hard copy to:

Bioinformatics Search Committee  
Department of Computer Science  
Texas A&M University  
College Station, TX 77843-3112.

Applications will be accepted until the positions are filled. The department welcomes applications from academic couples seeking to co-locate. Applications from minority and women candidates are especially encouraged. Texas A&M University is an affirmative action/equal opportunity employer committed to diversity.

### UMass Lowell

#### Department of Computer Science

The Department of Computer Science at the University of Massachusetts Lowell seeks scholars with exceptional records or, for junior appointments, with exceptional potential to expand our suite of research groups. We invite applications for several tenure-track faculty positions to start in January 2002 or September 2002, from applicants with specialties in traditional or innovative areas of computer science. We anticipate hiring at the assistant professor level, but will consider candidates at all levels.

Our campus is located 35 miles northwest of Boston in the state's high-tech corridor and is considered the most technology-oriented of the five UMass campuses. The CS department had 18 full-time faculty, as well as over 400 undergraduates in our accredited bachelor's program and over 250 graduate students in the master's and doctoral programs. Our research specialties include human-computer interaction, visualization and perception, bioinformatics, database systems, networking and telecommunications, languages and compilers, object-oriented software engineering, internet and web systems and newly formed groups in computational complexity, computational geometry, network and system security, and robotics and assistive technology. For more information about us, please visit: [www.cs.uml.edu](http://www.cs.uml.edu).

We are seeking candidates who will contribute to the intellectual life of the department, the university and the region by establishing active research groups, teaching core and elective computer science courses to undergraduate and graduate students, and establishing professional connections with the some of the thousands of thriving information technology companies in the area.

Applicants must have a doctorate in Computer Science or a closely related discipline at the time of appointment. Please send a statement of research interests; curriculum vitae; selected relevant papers; the names, addresses, email addresses, and telephone numbers of at least three references; and, if appropriate, your residency status to:

Dr. Thomas M. Costello, Head  
Department of Computer Science  
University of Massachusetts Lowell  
One University Avenue  
Lowell, Massachusetts 01854  
[tom@cs.uml.edu](mailto:tom@cs.uml.edu)

Review of applications will begin immediately and continue until the positions are filled. U. S. citizenship or permanent residency is required. The University of Massachusetts is an equal opportunity, affirmative action employer, and encourages applications from women and minorities.

### University at Albany State University of New York

#### Tenure Track Position in Bioinformatics

The Center for Comparative Functional Genomics and the Computer Science Department are seeking outstanding candidates in bioinformatics for tenure track, Assistant Professor positions with appointment to both the Center and the Department. Areas of interest include combinatorial and statistical analyses, data mining, machine learning, and stochastic and geometric modeling to investigate biological organization or to manage, analyze, and integrate information arising from genomics and proteomics projects. Applicants will have a Ph.D. in computer science, computational biology, bioinformatics, or a related discipline. The successful candidate will be expected to maintain a vigorous, extramurally funded research program and have a commitment to excellence in teaching.

The University and the State of New York have invested over \$80 million on a major initiative to establish a world-class facility for genomics research. This initiative includes departments across the College of Arts & Sciences, the School of Nanosciences and Materials, School of Public Health, and Albany Medical College. A new Life Sciences research building is currently under construction to house the Center. This bioinformatics position, and others in mammalian genomics and proteomics, is part of a commitment of at least 10 new junior and senior faculty in Functional Genomics over the next few years.

Interested individuals should submit, preferably via both e-mail and regular post, a curriculum vitae and statement of research

interests, and have at least three letters of reference sent to:

Michele Anderson  
Assistant to the Director  
Center for Comparative Functional Genomics  
University at Albany A202  
One University Place  
Rensselaer, NY 12144-3456  
(518) 591-8300

E-mail: [genomics@albany.edu](mailto:genomics@albany.edu)  
<http://www.albany.edu/genomics>  
The University at Albany is an AA/EO/IRCA/ADA employer.

### The University of Arizona

#### Department of Computer Science

<http://www.cs.arizona.edu>  
Applications are invited for the position of Lecturer or Senior Lecturer beginning August 2002. Lecturer candidates must hold a graduate degree in computer science or closely related field, have a strong commitment to excellence in teaching, and must have substantial experience teaching computer science at the university level. Compensation is competitive, with rank and salary dependent on experience and qualifications. This is a non-tenured position, with appointments for fixed terms of three years; reappointment is possible subject to review. Duties of this position include teaching undergraduate computer science courses in systems software areas, machine organization and architecture, operating systems, data structures and programming languages. Duties also include academic advising of students, service on department committees involved in undergraduate life, and development of new curriculum and new instructional laboratories. Applicants must send a curriculum vita and the names of at least three references to:

Faculty Recruiting Committee  
Department of Computer Science  
The University of Arizona  
PO BOX 210077  
Tucson, AZ 85721-0077

A majority of the references should be able to comment directly upon the candidate's teaching experience and abilities. We will start the review of applications on January 15, 2002, and will continue to consider applicants until the position is filled, subject to availability of funds.

The University of Arizona is an EEO/AA employer - M/W/D/V.

### The University of Arizona

#### Department of Computer Science

<http://www.cs.arizona.edu>  
Applications are invited for tenure-track faculty positions, at the rank of Assistant Professor, Associate Professor, or Professor, beginning employment August, 2002. Candidates must hold a doctorate in computer science or related field, have a commitment to excellence in teaching, and a demonstrated strong potential for excellence in research.

Primary consideration will be given to computer scientists who work in systems software, networks, artificial intelligence, bioinformatics and graphics.

The Department of Computer Science at the University of Arizona has a long history of research accomplishment, influential software distribution and substantial external funding to individual faculty, exceeding 2.5 million dollars last year. Major funding has included four NSF infrastructure grants, providing a broad array of equipment for computing research. Research areas include programming languages, compilers, operating systems, networks, algorithm design, database systems, and computational biology.

Applicants must send a curriculum vitae and the names of at least three references to: Faculty Recruiting Committee  
Department of Computer Science  
The University of Arizona  
PO BOX 210077  
Tucson, AZ 85721-0077

We will start the review of applications on October 15, 2001, and will continue to consider applicants until the positions are filled, subject to availability of funds. The University of Arizona is an EEO/AA employer -M/W/D/V.

### University of Arkansas

#### Computer Science and Computer Engineering

##### Axiom Chair

The University of Arkansas invites applications and nominations for an 'Axiom Chair' position at the Full Professorial level in Databases, Information Retrieval Systems, and Software Methodology and Engineering in the Computer Science & Computer Engineering (CSC) Department beginning Fall Semester 2002. Candidates should possess a record of demonstrated scholarship, administrative ability, and academic leadership, evident from their experiences in the areas of research, teaching, and professional achievement. Industry experience is highly desired, with the candidate able to qualify for the rank of tenured professor.

Applicants should hold an earned doctorate in Computer Engineering, Electrical Engineering, or Computer Science and should have demonstrated potential to excel in

teaching and research. Each applicant should prepare a two-page statement describing research plans as well as the significance and context of prior research. Application packages consisting of resume, research statement, and three references with complete information are requested.

A total of 16 tenure-track faculty positions and 5 full-time instructor positions exist within the department, 25% growth in the faculty is anticipated. The Computer Engineering (CENG) and the Computer Science (CSC) programs at the University of Arkansas offer Bachelor of Science in Computer Engineering (B.S.Cmp.E.), Master of Science in Computer Systems Engineering (M.S.C.S.E.), Master of Science in Engineering (M.S.E.), Doctor of Philosophy in Engineering (Ph.D.), and Doctor of Philosophy in Computer Science (Ph.D.). The B.S.C.E. degree meets the ABET 2000 accreditation criteria. Enrollment in the department is approximately 637 students (256 CSCE, 323 CENG), with 579 undergraduates (1999 Data) and 680 students in 2000. More information can be found at this site [www.csce.uark.edu](http://www.csce.uark.edu). The University of Arkansas is an Equal Opportunity/Affirmative Action Employer.

Submit applications to:  
Professor & Interim Head, A. Elshabini  
CSC Department  
313 Engineering Hall  
University of Arkansas  
Fayetteville, AR 72701  
or send attached files to  
[aicha@engr.uark.edu](mailto:aicha@engr.uark.edu)

### University of Calgary

#### Department of Computer Science

The Computer Science Department, Faculty of Science, at the University of Calgary is continuing a large expansion and seeks outstanding candidates for tenure track/tenured positions at the Assistant, Associate, and Full Professor levels. We are interested in candidates in all areas of Computer Science and outstanding candidates from any area will be seriously considered. Applicants from software engineering, distributed systems, operating systems, cryptography, and human-computer interactions are of particular interest during this hiring round. Applicants must possess a doctorate in Computer Science or a related discipline, and have a strong research record. They must be enthusiastic about contributing to both research and teaching. The Department is committed to excellent research and teaching. It has an expanding graduate program and extensive state-of-the-art computing facilities. Further information about the Department is available at <http://www.cpsc.ucalgary.ca>. Interested applicants should send a CV, a concise description of their research program, and the names and email addresses of three references to:

Dr. K. Barker, Acting Head  
Department of Computer Science  
University of Calgary  
2500 University Drive  
Calgary, AB, Canada, T2N 1N4 or  
email to: [search@cpsc.ucalgary.ca](mailto:search@cpsc.ucalgary.ca)

To expedite the handling of applications, candidates should ask those named as references to send supporting letters to the same address. Applications will be considered as they are received and the search will be continued until all available positions are filled. Applications are encouraged from Canadians, Permanent Residents of Canada and non-Canadians. The University of Calgary respects, appreciates, and encourages diversity.

### University of California, Davis

#### Department of Computer Science

##### Faculty Positions

The Department of Computer Science, at the University of California, Davis, invites applications for several tenure-track faculty positions. The department is seeking candidates at all levels. At the senior level, we invite applications from candidates with truly distinguished records in research, teaching, and leadership; at the junior level, we invite applications from candidates with demonstrated research excellence and a commitment to excellence in teaching. The department welcomes applications from candidates in areas that emphasize innovative applications in computer science. It has a particular interest in the areas of Computer Systems (including operating systems, compilers, architecture, programming languages, and software engineering), Networks, Computational Biology, and Information Systems. We further encourage applicants whose research can both have impact in these core areas and leverage our extensive programs in graphics/visualization and security.

The Computer Science Department currently has 24 faculty members, covering all major areas of computer science. It is experiencing a period of strong growth in the size of its faculty and expects to continue this trend. The Davis campus is the third largest in the University of California system. UC Davis ranks among the nation's top 20 universities in research funding.

Davis is a pleasant, family-oriented community in a college town setting with

excellent public schools and a mild climate. Davis is ideally located for many professional, cultural and recreational activities. It is just 15 miles from California's capital city of Sacramento and is within easy driving distance of the Silicon Valley, Berkeley, San Francisco, the Sierra Nevada Mountains, and the Pacific Coast areas.

These positions require a Ph.D. or equivalent. The positions are open until filled, but for full consideration, applicants should apply by January 14, 2002.

UC Davis is responsive to the concerns of dual career couples and offers a Partner Opportunity Program. UC Davis is an affirmative action/equal opportunity employer.

Please consult our web page (<http://www.cs.ucdavis.edu/employ>) for additional information on the particular areas of interest and application instructions.

### University of California, Los Angeles

#### Department of Computer Science

The Department of Computer Science in the Henry Samueli School of Engineering and Applied Science at the University of California, Los Angeles, invites applications for tenure-track positions in all areas of Computer Science and Computer Engineering. Applications are also strongly encouraged from distinguished candidates at senior levels. The UCLA Campus administration is committed to significant growth in the faculty of Computer Science Department, with a projection of 3-4 new faculty members per year for the next five years.

Quality is our key criterion for applicant selection. Applicants should have a strong commitment to both research and teaching and an outstanding record of research for their level. We seek applicants in any mainstream area of Computer Science and Computer Engineering, but we particularly welcome those with a strength in systems, compilers, theory, and in interdisciplinary areas such as bioinformatics and electronic commerce.

Interested applicants should e-mail their CV and cover letter addressed to: Professor Milos Ercegovac, Chair, in two separate PDF files to [chair@cs.ucla.edu](mailto:chair@cs.ucla.edu). Please indicate field of interest. A list of four references with complete addresses, telephone numbers, and e-mail addresses should also be submitted in a text file.

The University of California is an Equal Opportunity/ Affirmative Action Employer.

### University of California, Santa Barbara

#### Department of Computer Science

##### Faculty Positions

The University of California at Santa Barbara invites applications for several faculty positions in Computer Science and Computer Engineering. While the department emphasizes building strengths in experimental computer science, applicants in all areas of computer science are welcome.

The Department of Computer Science currently has 25 full-time faculty and approximately 140 graduate students (including approximately 75 Ph.D. students) involved in various research areas including digital libraries and databases, parallel and distributed systems, programming languages, networking, bioinformatics, computer and network security, theory of computation, algorithms, computer vision and interaction, and computational sciences.

The Department of Computer Science is part of an expanding College of Engineering which encompasses over 100 faculty in various engineering disciplines. UCSB is a major research institution, elected member of the Association of American Universities, as well as an integral part of the nine-campus University of California system. Graduate degrees in Computer Science are offered at the M.S. and Ph.D. levels. The department recently received a NSF CISE award to experiment with campus-wide wireless network, hand-held devices, and multimedia services, and is engaged in a number of collaborative projects (e.g., Alexandria Digital Library) both at the College and the campus level. The total amount of the 2000-01 extra-mural funding in the department was more than 5 million dollars.

Applicants should hold a doctoral degree in Computer Science or a related field; appointments are scheduled to begin in 2002-2003. Primary consideration will be given to candidates who apply by January 15, 2002, however positions will remain open until filled. Send resume, research and teaching statements, and names of at least four referees to:

Recruitment Committee  
Department of Computer Science  
University of California  
Santa Barbara, CA 93106-5110

To apply by electronic mail, send the application to: [recruit@cs.ucsb.edu](mailto:recruit@cs.ucsb.edu). Additional information about the Computer Science Department may be found at <http://www.cs.ucsb.edu>.

An EO/AA employer.

## Professional Opportunities

### University of California, Santa Cruz

#### Baskin School of Engineering

Seeks qualified applicants for faculty positions in:

- Computer Engineering
- Computer Science
- Electrical Engineering

Positions available at the Assistant, Associate and Full Professor levels.

For complete information on all positions, see <http://www.soe.ucsc.edu/events/jobs>

Fax: 831-459-4829

UCSC is an EEO/AA/IRCA Employer

### University of Chicago

#### Department of Computer Science

##### Director of Computing Facilities

The Director of Computing Facilities is a new position responsible to the faculty of the Department of Computer Science.

The director will take a long-term strategic view of all computing and networked communications in the department, and will work in partnership with the faculty so that computing and networking activities contribute substantially to the intellectual achievements of the department. He/she will take a leadership role in collaborations with partners outside the department, including other university departments, computing and networking operations at other universities, regional networking organizations, and commercial partners.

We expect a director with the required level of creative leadership to spend some time on related intellectual activities. Depending on their interest and background these could include teaching, participation in research projects, software development, or leadership in professional organizations.

Candidates must hold either a doctoral degree in computer science or a related technical discipline, or experience demonstrating a comparable level of intellectual creativity, as well as demonstrated managerial and leadership ability.

For more information see <http://www.cs.uchicago.edu/info/director> The University of Chicago is an Equal Opportunity/Affirmative Action Employer and encourages applications from under-represented minorities and women.

Please send applications to:

Michael O'Donnell  
Department of Computer Science  
University of Chicago  
1100 E. 58th Street  
Chicago, IL. 60637-1581

### The University of Chicago

#### Department of Computer Science

The Department of Computer Science at the University of Chicago is recruiting at all levels in a wide range of topic areas, including but not limited to AI, bioinformatics, computational linguistics, security, systems, and theory.

The University of Chicago has the highest standards for scholarship and faculty quality - and the Computer Department's charge and goal is substantial growth through appointments that will enhance the quality and prestige of our University. We especially value faculty whose research has impact and visibility beyond Computer Science. The University and Argonne National Laboratory established the Computation Institute to facilitate such interdisciplinary research. The Chicago Metropolitan area is diverse and exciting. The local economy is vigorous, with international stature in banking, trade, commerce, manufacturing, and transportation, while the cultural scene can boast diverse cultures, vibrant theater, world renowned symphony, opera, jazz, and blues, not to mention the best pizza in the world

Please send nominations or applications to:

Professor Stuart A. Kurtz, Chairman  
Department of Computer Science  
The University of Chicago  
1100 E. 58th Street, Ryerson Hall  
Chicago, IL. 60637-1581

We encourage prospective applicants to submit their cases electronically. Instructions and details are available from <http://www.cs.uchicago.edu/recruit> or by email to [recruit@cs.uchicago.edu](mailto:recruit@cs.uchicago.edu).

The University of Chicago is an Equal Opportunity/Affirmative Action Employer.

### University of Cincinnati

#### Department of Electrical & Computer Engineering and Computer Science

The Department of Electrical & Computer Engineering and Computer Science invites applications and nominations for Assistant/Associate Professor positions in Computer Engineering and Computer Science, although appointment at higher rank will be considered for candidates with exceptional qualifications. Areas of interest include 1) VLSI and design automation, 2) software engineering and formal methods, 3) microarchitectures, 4) programming languages and algorithms, and 5) networks and distributed systems. Candidates must have earned Ph.D. degrees in Computer Science, Computer Engineering, or a closely related field, and have the commitment to develop significant funded research programs and to provide effective instruction at the undergraduate and graduate levels. The ECECS

Department offers fully ABET-accredited undergraduate programs and M.S. programs in Computer Engineering and Electrical Engineering, B.S. and M.S. programs in Computer Science, and offers the Ph.D. in Computer Science & Engineering and in Electrical Engineering. The Department has 47 full-time faculty, 350 full-time graduate students and 550 undergraduate students, and awards approximately 35 M.S. and 15 Ph.D. degrees per year. Research and education programs are well-funded, with annual research funding over \$7M. The Department has well-equipped research and teaching laboratories, and occupies 45,000 square feet of space including research laboratory space in a new Engineering Research Center. For additional information please see the departmental web site at <http://www.ececs.uc.edu>. Curricula vitae and/or nominations should be sent to:

Ms. Jennifer Moore, Secretary  
Computing Search Committee  
P. O. Box 210030  
University of Cincinnati  
Cincinnati, Ohio 45221-0030, or electronically to [jmoore@ececs.uc.edu](mailto:jmoore@ececs.uc.edu)

The University of Cincinnati is an Affirmative Action/Equal Opportunity employer and encourages applications from women and minorities.

### University of Florida

#### Department of Computer and Information Science and Engineering

##### Faculty Positions

The Department of Computer and Information Science and Engineering at the University of Florida invites applications for several tenure track positions at all ranks beginning January 2002 or anytime thereafter. While applications in all areas of computer science and engineering are welcome, we are particularly interested in outstanding candidates with expertise in the following fields: software engineering, systems and architecture, digital arts, bioinformatics and biocomputing, computer graphics and visualization, computer networks, computer algorithms and database systems.

All applicants should hold a PhD in Computer Science, Computer Engineering, or a closely related discipline, and should be committed to excellence in teaching and research. Salary and support are competitive and depend on background and experience.

The Department of CISE currently has tenure track faculty of 29 and a student body of 320 graduate and 1564 undergraduate students. The Department encompasses a wide range of research areas including high performance computing, database systems, computer vision, computer graphics, simulation, computer networks and security, distributed and real-time systems, and software engineering.

Candidates should send a curriculum vitae and have at least three letters of recommendation sent to:

Chair, Faculty Search Committee  
c/o Robyn Edwards  
Department of Computer and Information Science and Engineering  
301 CSE, PO Box 116120  
University of Florida  
Gainesville, FL 32611  
e-mail to: [search@cise.ufl.edu](mailto:search@cise.ufl.edu)  
Tel: (352) 392-1212

The committee will begin reviewing applications on October 30, 2001 and will continue to receive applications until the positions are filled.

The University of Florida is an Affirmative Action Employer and women and minorities are encouraged to apply. For more information about the department and positions, please visit <http://www.cise.ufl.edu>

### The University of Iowa

#### Computer Science Department

##### Assistant Professor Positions, Fall 2002

The University of Iowa Computer Science Department invites applications for tenure-track and visiting positions at the assistant professor level. All research areas will be considered, although preference will be given to applicants with interests in computational biology.

Selection will be based on evidence of outstanding research potential and teaching ability. We seek candidates whose research has achieved, or promises to achieve, national recognition and appropriate extramural funding. A Ph.D. in Computer Science (or a closely related field) is required.

Iowa City is a small city of approximately 75,000, with excellent public schools, affordable housing, a world-class medical center, low crime rate, and abundant cultural and recreational activities. The University has approximately 29,000 students. The campus of 100 buildings on 900 acres is nicely situated along both banks of the Iowa River and is adjacent to the thriving downtown commercial area of Iowa City.

To apply, please send a resume and have three letters of recommendation sent to:

Faculty Hiring Committee  
Department of Computer Science  
University of Iowa  
14 MacLean Hall  
Iowa City, Iowa 52242-1419

Evaluation of applications will begin immediately and continue until the position is filled. Applications received on or before January 15, 2002 will be assured of consideration.

Informal queries may be directed to [cs\\_hiring@cs.uiowa.edu](mailto:cs_hiring@cs.uiowa.edu).

Women and minority candidates are especially urged to apply for this position. The University of Iowa is an Affirmative Action/Equal Opportunity Employer.

### University of Louisiana at Lafayette

#### The Center for Advanced Computer Studies

Applications are invited for the position of Research Scientist to begin as soon as possible, but after January 1, 2002. A Master's or Ph.D. in Computer Science or an allied field, and research experience in Machine Learning, Database Management, Web Technologies and/or Multi-media Retrieval is required.

Responsibilities of the position include: extend and refine research prototypes into commercializable products, both as an architect/developer and as project manager, for developmental activities involving other staff members and graduate students in the research team; explore business opportunities and contract or funding opportunities and contribute as part of a research team in developing research proposals (particularly, for programs such as SIBR and STTR); take a lead role in establishment of industrial ties and technology transfer; seek opportunities for match funds from industry; carry out steps needed to protect intellectual property by going after patents, licensing opportunities, etc., as appropriate, for technical ideas emerging from the research team.

This is a nine month position, with a continuing appointment as enabled by the Information Technology initiative of the State of Louisiana. The appointee is permitted to receive supplemental summer income through successful grant and contract funding efforts.

The Center is primarily a graduate research unit, of 15 faculty, with programs leading to MS/PhD degrees in computer science and computer engineering. The Center has state-of-the-art research and instructional computing facilities, consisting of several networks of SUN workstations and other high performance platforms. Additional information about the Center may be obtained at <http://www.cacs.louisiana.edu/>.

The University is located in Lafayette, the capital of Acadiana, which is characterized by its Cajun music and food, and joie de vivre atmosphere. The city, with its population of over 120,000, provides many recreational and cultural opportunities. Lafayette is located approximately 120 miles west of New Orleans.

Consideration of applicants will begin immediately, and continue until the position is filled. Applicants should send a letter of application, curriculum vitae, and the names of three references to:

Dr. Vijay Raghavan  
The Center for Advanced Computer Studies  
University of Louisiana at Lafayette  
Lafayette, Louisiana 70504-4330

The position is funded through Governor Foster's Information Technology Initiative.

The University is an Affirmative Action/Equal Opportunity Employer.

### University of Maryland Baltimore County

#### Department of Computer Science and Electrical Engineering

##### Tenure-Track Faculty Positions in Computer Science

The Department of Computer Science and Electrical Engineering (CSEE) of the University of Maryland Baltimore County (UMBC) invites applications for multiple tenure-track faculty positions at the rank of Assistant Professor. Higher ranks may be considered. We are especially interested in applicants in the areas of systems, computer graphics, computer networks, information assurance, software engineering, or experimental computer science, but outstanding candidates in other areas will be considered. Applicants must have, or be about to receive, a Ph.D. in computer science or a related discipline.

UMBC is ranked in top tier of nation's research universities (Doctoral/Research Universities-Extensive) by the Carnegie Foundation. The Department offers B.Sc., M.Sc., and Ph.D. degrees and has 29 tenured and tenure-track faculty members and 7 lecturers, and about 1300 undergraduate majors and 240 graduate students. We received over \$8M in sponsored research support last year and are planning on significant growth. Our move into a new building for information technology and engineering is scheduled for early 2003.

Applications, including CV, and a statement of teaching and research interests and goals, should be sent to:

CS Faculty Search  
Department of Computer Science and Electrical Engineering  
University of Maryland Baltimore County  
1000 Hilltop Circle  
Baltimore, MD 21250, or by email as a single attachment to [cs-search-tr@cs.umbc.edu](mailto:cs-search-tr@cs.umbc.edu) (which is also the email address for inquiries)

Applicants should arrange for three letters of reference to be sent to the same address. Selection of candidates will start immediately, and will continue until all the positions are filled.

For further information see <http://www.csee.umbc.edu/jobs/>.

UMBC is an affirmative action/equal opportunity employer.

### University of Maryland Baltimore County

#### An Honors University in Maryland Department of Information Systems

##### Chair

The Department of Information Systems invites applications from experienced leaders/researchers for the position of Chair. The Chair will lead a growing faculty with diverse research interests and backgrounds and promote the Department on and off campus.

The Department has 1400 undergraduate and 150 MS and Ph.D. students. A new, innovative online MS is offered via a partnership with Open University.

Faculty research is supported by grants and contracts from both government and industry. UMBC is a Carnegie Doctoral/Research-Extensive University with a strong arts and humanities core and an emphasis on science, engineering, and information technology. The suburban campus is located in the Baltimore-Washington corridor, minutes from I-95, the BWI Airport, and Amtrak station.

For more information, visit URL <http://www.ifsm.umbc.edu/>. Please send a statement of interest, CV, and names of three referees to:

Dr. Robert P. Burchard  
c/o Information Systems Department  
UMBC, 1000 Hilltop Circle  
Baltimore, MD 21250

Appointment anticipated on or before July 1, 2002.

UMBC is an EO/AA Employer

### The University of Massachusetts, Amherst

#### Department of Computer Science

##### Faculty and Research Scientist Positions

The University of Massachusetts, Amherst invites applications for tenure-track faculty positions at the assistant professor level.

Applicants must have a Ph.D. in Computer Science or related area and should show evidence of exceptional research promise. Candidates with an established record of strong research may also apply for positions other than at the assistant professor level. Candidates in all areas of Computer Science are encouraged to apply, but we are particularly interested in computer vision, robotics, computer architecture, and foundational and emerging areas of software. We particularly welcome candidates who would thrive in a highly collaborative environment in which projects often span several research groups.

The Department of Computer Science has 37 tenure and research track faculty and 170 Ph.D. students with broad interdisciplinary research interests. The department offers first-class research facilities and has just moved into a new state-of-the-art building. Please see <http://www.cs.umass.edu> for more information. Applications should reference search R12389.

We also invite applications for Research Faculty (R12390), Research Scientist (R12391), Postdoctoral Research Associate (R12391), and Research Fellow (R12391) positions in all areas of Computer Science. Applicants should have a Ph.D. in Computer Science or related area (or an M.S. plus equivalent experience), and should show evidence of exceptional research promise. These positions are grant-funded; appointments will be contingent upon continued funding.

To apply, send a letter with your vitae and at least three letters of recommendation to:

Search [fill in number from above]  
c/o Chair of Faculty Recruiting  
Department of Computer Science  
University of Massachusetts  
Amherst, MA 01003-4610

Review of applications has begun and will continue until the available positions are filled. Salary commensurate with education and experience; comprehensive benefits package.

Inquiries and requests for more information can be sent to: [facrec@cs.umass.edu](mailto:facrec@cs.umass.edu)

The University of Massachusetts is an Affirmative Action/Equal Opportunity employer. Women and members of minority groups are encouraged to apply.

### University of Miami

#### Department of Computer Science

##### New tenure-track faculty positions

The Department of Computer Science at the University of Miami seeks to hire new tenure-track faculty. At least one appointment is envisioned at the rank of Assistant Professor, and at least one at the rank of

## Professional Opportunities

Associate Professor. Candidates must hold a doctorate in computer science or a related field, and must demonstrate strong potential for excellence in research and teaching. Rank and salary are commensurate with qualifications.

The Department of Computer Science is a newly established department, recently separated from the combined Department of Mathematics and Computer Science. The successful candidate will show the desire to shape the future of this budding department. The University of Miami is a Group I research university as well as a member of the next-generation Internet (Internet2) project. For more information on the department and the university, please visit our web site at [www.cs.miami.edu](http://www.cs.miami.edu).

Applicants should send a letter of application, curriculum vitae, research statement, teaching statement, and the names of three references to:

Victor Milenkovic, Department Chair  
Faculty Search Committee,  
Department of Computer Science  
University of Miami, P. O. Box 248154  
Coral Gables, FL 33124-4245  
or via email to [cssearch@cs.miami.edu](mailto:cssearch@cs.miami.edu)

Please include in your letter of application a URL containing supporting material, such as online publications. Electronic submissions are strongly encouraged.

Review of applications will begin immediately and continue until positions are filled. Women and minorities are encouraged to apply. The University of Miami is an Affirmative Action/Equal Opportunity Employer.

### The University of Michigan, Ann Arbor

Department of Electrical Engineering and  
Computer Science  
*Computer Science and Engineering  
Division Faculty positions*

Applications and nominations are solicited for several junior and senior faculty positions in the Computer Science and Engineering (CSE) Division. Qualifications include an outstanding academic record, a doctorate or equivalent in computer engineering or computer science, and a strong commitment to teaching and research. Candidates from all areas of computer science and engineering will be considered.

The University of Michigan is a Non-Discriminatory/Affirmative Action Employer.

Please send resume and names of three or more references to:

Professor John E. Laird, Assoc. Chair  
CSE Division  
Department of Electrical Engineering and  
Computer Science  
University of Michigan  
1301 Beal Avenue, Room 3402  
Ann Arbor, MI 48109-2122  
URL: <http://www.eecs.umich.edu/cse>

You may submit applications and inquiries via email to [cssearch@eecs.umich.edu](mailto:cssearch@eecs.umich.edu)

### The University of Missouri-Rolla Faculty Position in Computer Science

<http://www.cs.UMR.edu/>

The Department of Computer Science at the University of Missouri-Rolla is seeking qualified applicants for tenure-track faculty positions. All Areas of Computer Science specialization will be considered. Applicants must have a demonstrated record of research publications, collaborations, and funding commensurate with the position they seek. Applicants for junior positions must demonstrate evidence of their ability to perform research and have had prior involvement in group research activities and hold an earned Ph.D. by the appointment start date. Applicants for senior positions must have a demonstrated record of research and funding emphasizing research team leadership as the principal investigator. The successful candidate will be expected to contribute to the Departmental research effort and show a commitment to quality teaching both at Undergraduate and Graduate levels.

The Department has 15 full-time faculty and grants the BS, MS and Ph.D. degrees. The Department has an aggressive young faculty with growing levels of funded research. Interdisciplinary research activities exist in the UMR Intelligent Systems Center and where faculty members in the Department may become Research Investigators in this Center. The University of Missouri-Rolla is the primary science and engineering campus of the University of Missouri system. It is situated in the beautiful non-urban environment of the Ozarks. St. Louis is 1 1/2 hours away via interstate highway. Salary is competitive with Big-10/Big-12 universities. UMR encourages dual career couples to apply.

The committee will begin reviewing applications on February 15, 2001. Applications are accepted until the position is filled. Applicants should send a vita and a statement of research and teaching interests, and arrange to have three letters of reference sent to:

Human Resource Services  
Reference Number: R53629  
307 University of Missouri-Rolla  
1202 North Bishop 1870 Miner Circle  
Rolla, MO 65409-1050

UMR is an AA/EEO employer. Females, minorities and persons with disabilities are encouraged to apply.

### University of Nebraska – Lincoln Computer Science and Engineering Department

The UNL CSE Department is embarking on dynamic growth and seeks applications for endowed professorships, tenure-track faculty positions, and research faculty positions in the following areas:

Bioinformatics, Computational sciences, Computer engineering, Database and information systems, Distributed systems, Networks, Software engineering, or Computer science and engineering education.

Exceptional candidates in other areas will be considered.

UNL is a comprehensive research university with Carnegie I standing and membership in the elite Association of American Universities. The CSE Department offers BS, MS, and PhD degree programs in both computer science and computer engineering. Lincoln, the capital of Nebraska, is a prosperous, medium-sized city that ranks high in quality-of-life.

For complete position advertisements, visit <http://cse.unl.edu/search>, email [search@cse.unl.edu](mailto:search@cse.unl.edu), or phone (402) 472-2401.

### University of Nevada, Reno Department of Computer Science

Applications are invited for a tenure track Assistant Professor position beginning in August 2002. A Ph.D. in Computer Science or Computer Engineering is required by the date of appointment. Candidates should possess a demonstrated potential and strong commitment to quality research and teaching at the undergraduate and graduate levels. Candidates with expertise in one or more of the following areas may be given preference: software engineering, database systems, computer networking and data communication. The department offers BS, MS and Ph.D. degrees. It is a dynamic, growing department looking to fill two tenure track faculty positions by fall 2002. For complete position announcements and requirements, see <http://jobs.unr.edu>, visit [www.cs.unr.edu](http://www.cs.unr.edu) or email [varol@cs.unr.edu](mailto:varol@cs.unr.edu) for further information. The Reno area has four mild seasons and is a scenic half-hour drive to Lake Tahoe, one of the largest and most beautiful alpine lakes on the planet. The Pacific Crest Trail is nearby for hiking and fantastic ski areas abound. San Francisco and the Silicon Valley are within a short half-day's drive. To apply, send a letter and vita, and have 3 letters of reference sent to:

Search Committee Chair  
Computer Science Department/171  
University of Nevada, Reno  
Reno, NV 89557

Review of applications will begin February 18, 2002. EEO/AA.

### University of North Carolina at Chapel Hill

Department of Computer Science

The Computer Science Department at UNC-Chapel Hill is expanding its areas of research and its facilities. We are currently planning new laboratory and office space that will more than double our current space by the end of the decade.

We invite applications for up to four faculty positions at open rank (including both tenure track and non-tenure track lecturer positions) to begin Fall 2002 or Spring 2003.

We invite applications from exceptional candidates in all areas, but especially in software systems (including operating systems and compilers), networking, embedded systems, ubiquitous computing, computer vision, hardware systems, and graphics.

Candidates for tenure track positions must hold or expect to hold a Ph.D. degree before starting employment, or must present an equivalent level of professional accomplishment. Candidates for lecturer positions must hold an MS degree or equivalent. Further information about the department and the application procedure for this search is available via our web site <http://www.cs.unc.edu> under "Joining our Department/Faculty Recruiting" or by e-mail to [faculty-recruiting02@cs.unc.edu](mailto:faculty-recruiting02@cs.unc.edu).

Our Department emphasizes excellence in research and teaching, and attracts excellent students from within the country and abroad. The University is conveniently located near the Research Triangle Area, and near Duke and North Carolina State Universities with

(cont'd)

## COMPUTER SCIENCE AND ENGINEERING DEPARTMENT



### THE UNIVERSITY OF TEXAS AT ARLINGTON

**The University of Texas at Arlington (UTA), Computer Science and Engineering (CSE) Department - CSE@UTA** invites applications for multiple tenure-track faculty positions at all levels. However, preference will be given to positions at assistant or associate professor levels. All areas of computer science will be considered, including: software engineering; multimedia and video processing; bio-informatics; pervasive computing; intelligent systems; networks and telecommunications; database and data mining; and applied theory. UTA, part of The University of Texas System, is located in the heart of the rapidly growing Dallas/Fort Worth area, one of the nation's largest high-technology regions, with a flourishing industrial base and excellent opportunities for industry/university collaboration.

We at CSE@UTA are committed to excellence in research, teaching, and service. Last year we kicked off a **"Top 25 Initiative"** with the goal of reaching a national top 25 ranking. The initiative is strongly supported by all CSE@UTA stakeholders including the UTA administration, our students and alumni, and our industry partners. The highlights of the Top 25 Initiative include significant increase in tenure track faculty positions and PhD students; significant increase in research funds; and establishment of endowed student fellowships, endowed faculty chairs, and industry-sponsored laboratories.

Applicants must have an earned doctorate in computer science, computer engineering, or closely related fields and a commitment to teaching and scholarly research. Applicants are expected to have an excellent record of professional accomplishments, commensurate with their level of experience. The faculty openings are anticipated for September 2002. Screening of applications will begin immediately and will continue until all positions are filled. Interested persons should send a resume and reference letters to:

Dr. David Kung, Chair of Search Committee  
Department of Computer Science and Engineering  
P.O. Box 19015

For overnight express: 416 Yates St., NH300  
Arlington, TX 76019-0015

Phone: 817-272-3605  
FAX: 817-272-3070  
Email: [search@cse.uta.edu](mailto:search@cse.uta.edu). <http://www.cse.uta.edu>.

The University of Texas at Arlington is an Equal Opportunity/Affirmative Action Employer.

## Professional Opportunities

which our faculty have many successful ongoing research collaborations. Chapel Hill has consistently been named "one of the best cities to live".

Minorities and women are encouraged to apply. The University of North Carolina is an equal opportunity, affirmative action employer.

### University of North Dakota Department of Computer Science

Applications are invited for tenure-track positions at the assistant or associate professor level in the Computer Science Department beginning August 16, 2002. A Ph.D. in Computer Science is preferred. Applicants must have a commitment to excellence in research and teaching and possess good communication skills. Candidates in all areas of computer science are encouraged to apply. We are particularly interested in candidates specializing in networks.

The department has 270 undergraduate and graduate majors and 10 faculty members. It offers B.S. (CSAB accredited), B.A., and M.S. degrees. For more information on UND and the department, see <http://www.cs.und.edu>.

Screening of applicants will begin immediately. Send a letter of application, a current curriculum vita, names and e-mail addresses of three references and a statement of teaching and research interests to:

T.E. O'Neil, Faculty Search Committee  
Computer Science Department  
University of North Dakota  
Grand Forks, ND 58202-9015.

The University of North Dakota is an Equal Opportunity/Affirmative Action Employer.

### University of Notre Dame Department of Computer Science and Engineering

The Department of Computer Science and Engineering at the University of Notre Dame (<http://www.cse.nd.edu>) invites applications for tenure-track faculty positions. Ranks and areas of research specialty are open. Qualifications include an earned Ph.D. in computer science, computer engineering, or a related field, evidence of the ability to develop and/or sustain an active research program, and a sincere interest in quality teaching at the undergraduate and graduate levels. Appointments to chaired professorships may be available for exceptionally qualified candidates.

Notre Dame was ranked 19th among doctoral universities by US News and World Report in 2001. The average SAT score for entering students across the University as a whole approaches 1350. Notre Dame's heritage is unique among top-ranked national universities, resulting in a distinctive character of campus life.

Screening of applications will begin on December 1, 2001 and continue until the positions are filled. Applicants should send a cover letter, a curriculum vita, a statement of research interests, a statement of teaching interests, and the names and addresses of at least three references qualified to comment on the applicant's qualifications either to [faculty-search@cse.nd.edu](mailto:faculty-search@cse.nd.edu), or to:

Chair, Faculty Search Committee  
Department of Computer Science and Engineering  
384 Fitzpatrick Hall  
University of Notre Dame  
Notre Dame, IN 46556  
USA

University of Notre Dame is an Equal Opportunity, Affirmative Action Employer.

### University of Oklahoma Computer Science for Intelligent Aerospace Systems Faculty Position

The School of Computer Science, in collaboration with the School of Aerospace and Mechanical Engineering, invites applications for a new faculty position with an emphasis in Intelligent Aerospace Systems. Successful candidates will support a multidisciplinary effort to incorporate a new Intelligent Systems component in the Aerospace Engineering degree program and will be expected to develop and teach courses common to both Computer Science and Intelligent Aerospace Systems. Applicants must hold a Ph.D. in a relevant area and must have experience or training in the aerospace field. Research areas of interest include, but are not limited to, intelligent design, autonomous systems, and embedded systems and software.

The School of Computer Science (CS) and the School of Aerospace and Mechanical Engineering (AME) are two of seven schools in the College of Engineering committed to a common vision: to produce graduates sought among the first by academia, industry and investors for excelling in a rapidly changing technology-driven world at all levels of engineering, education and management. The College strategy includes development of multidisciplinary partnerships, innovative learning technologies, and a balanced mix of publicly and privately funded research. The School of CS and the School of AME offer ABET-accredited B.S. degree programs in Computer

Science, Aerospace Engineering, and Mechanical Engineering, as well as M.S. and Ph.D. degrees in each field. CS has a faculty of twelve, about 350 undergraduates, and about 125 graduate students. AME has 19 faculty positions, about 500 undergraduates, and approximately 100 graduate students. Further details about the two schools can be obtained at [www.cs.ou.edu](http://www.cs.ou.edu) <<http://www.cs.ou.edu>> and [www.ame.ou.edu](http://www.ame.ou.edu)

Applicants are requested to submit a letter of intent along with a curriculum vita and the names and addresses of three references to the address below. Applications will be reviewed as they are received; the search will continue until the positions are filled.

Chair, Intelligent Aerospace Systems  
Search Committee College of Engineering  
202 West Boyd Street  
Carson Engineering Center, Room 107  
Norman, Oklahoma 73019  
Phone: (405) 325-2621  
Fax: (405) 325-7508  
e-mail: [dlshirley@ou.edu](mailto:dlshirley@ou.edu)  
<mailto:dlshirley@ou.edu>

The University of Oklahoma is a comprehensive university located in Norman, Oklahoma. Norman has a population of 93,000 (1998 est.) and one of the best public school systems in the nation. The University and the Norman area offer a wide range of cultural and recreational activities. Norman is located near Oklahoma City (1,060,000 metro area). The University of Oklahoma's beautiful 2,000 acre Norman Campus serves over 22,000 students from all 50 states and 111 countries.

The University of Oklahoma is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

### University of Oregon Computer and Information Science Faculty Positions

The Department of Computer and Information Science has multiple tenure-track and tenured faculty positions open for Fall 2002. The department's primary recruiting focus is in the following areas: networking and parallel/distributed systems at both assistant and associate professor levels, programming languages at the assistant professor level, and graphics at the assistant professor level. Outstanding applicants in other areas will also be seriously considered. Applicants must have a Ph.D. in computer science, a demonstrated record of excellence in research, and a strong commitment to teaching.

The CIS department has seventeen research faculty and two instructors and offers B.S., M.S., and Ph.D. degrees. We offer a stimulating and friendly environment for collaborative research both within the department and with other departments on campus. The CIS Department is associated with the Cognitive and Decision Sciences Institute, the Computational Science Institute, the Computational Intelligence Research Laboratory, and the Software Engineering Research Center. More information about the department, its programs, and faculty can be found at <http://www.cs.uoregon.edu>

Mail your request to: University of Oregon, Dept. of Computer and Information Science, Eugene, OR 97403-1202

The University of Oregon is an AAU research university located in Eugene and within an easy drive of both the Pacific Ocean and the snow-capped Cascade Mountains.

Applicants should send their curriculum vitae, the names of at least four references, a statement of research and teaching interests, and selected publications to:

Faculty Search Committee  
Dept. of Computer and Information Science  
University of Oregon  
Eugene, OR 97403-1202  
email: [faculty.search@cs.uoregon.edu](mailto:faculty.search@cs.uoregon.edu)

Review of applications will begin in December 2001 and continue until the positions are filled.

The University of Oregon is an Equal Opportunity/Affirmative Action institution committed to cultural diversity and compliance with the Americans with Disabilities Act.

### University of Pennsylvania Department of Computer and Information Science Faculty Positions

The University of Pennsylvania invites applicants for tenure-track appointments in both experimental and theoretical computer science to start July 1, 2002. Senior level appointments will also be considered. Faculty duties include undergraduate and graduate level teaching as well as research.

Successful applicants will find Penn to be a stimulating environment conducive to professional growth. Construction is under way on our new \$21 Million Computer Science Building. The Department of Computer and Information Science has embarked on a strategic plan to add a significant number of tenure-track faculty over the next five years. We seek to expand and broaden both the applied and theoretical sides of our research and teaching program, building on existing strengths in algorithms and computational biology, computer graphics and animation, computer

vision and robotics, databases, logic and computation, natural language processing, networks and distributed systems, programming languages, and real time systems.

The University of Pennsylvania is an Ivy League University located near the center of Philadelphia, the 5<sup>th</sup> largest city in the US. Within walking distance of each other are its Schools of Arts and Sciences, Engineering, Medicine, Nursing, Law, Business and Fine Arts. The University campus and its surroundings in Philadelphia benefit from a rich diversity of cultural opportunities as well as attractive urban and suburban residential neighborhoods.

To apply, please complete the form located on the Faculty Recruitment Web Site at: [http://www.cis.upenn.edu/positions/faculty\\_application.html](http://www.cis.upenn.edu/positions/faculty_application.html)

Electronic applications are strongly preferred, but hard-copy applications (including the names of at least four references) may alternatively be sent to:

Chair, Faculty Search Committee  
Department of Computer and Information Science  
School of Engineering and Applied Science  
University of Pennsylvania  
Philadelphia, PA 19104-6389

Applications should be received by January 15, 2002 to be assured full consideration. Applications will be accepted until positions are filled. Questions can be addressed to: [faculty-search@central.cis.upenn.edu](mailto:faculty-search@central.cis.upenn.edu).

The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. The Penn CIS Faculty is sensitive to "two-body problems" and would be pleased to assist with opportunities in the Philadelphia region.

### University of Pennsylvania Department of Computer and Information Science Lecturer Positions

The University of Pennsylvania invites applicants for the position of Lecturer in Computer Science to start July 1, 2002. Lecturer duties include undergraduate and graduate level teaching. The position is for one year and is renewable annually up to three years.

Successful applicants will find Penn to be a stimulating environment conducive to professional growth. Construction is under way on our new \$21 Million Computer Science Building. Beginning Fall 2001, the Department of Computer and Information Science will institute the Master of Computer and Information Technology (MCIT). The MCIT is designed for candidates who have a strong academic background in areas other than computer science but who have a need for graduate education in computer science or a closely related discipline. Completion of the MCIT program will give the graduate a solid foundation in computer science, providing the advanced expertise needed to meet the demands of the rapidly growing field of information technology. MCIT graduates will be ready to enter the IT workforce, or will find new opportunities in continuing their education. The MCIT program will also prepare students for further graduate education in computer science.

The University of Pennsylvania is an Ivy League University located near the center of Philadelphia – the 5<sup>th</sup> largest city in the US. Within walking distance of each other are its Schools of Arts and Sciences, Engineering, Medicine, Nursing, Law, Business and Fine Arts. The University campus and its surroundings in Philadelphia benefit from a rich diversity of cultural opportunities as well as attractive urban and suburban residential neighborhoods.

To apply, please complete the form located on the Faculty Recruitment Web Site at: [http://www.cis.upenn.edu/positions/faculty\\_application.html](http://www.cis.upenn.edu/positions/faculty_application.html)

Electronic applications are strongly preferred, but hard-copy applications (including the names of at least four references) may alternatively be sent to:

Chair, Lecturer Search Committee  
Department of Computer and Information Science  
School of Engineering and Applied Science  
University of Pennsylvania  
Philadelphia, PA 19104-6389

Applications should be received by March 1, 2002 to be assured full consideration. Applications will be accepted until positions are filled. Questions can be addressed to: [faculty-search@central.cis.upenn.edu](mailto:faculty-search@central.cis.upenn.edu).

The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. The Penn CIS Faculty is sensitive to "two-body problems" and would be pleased to assist with opportunities in the Philadelphia region.

### University of Pennsylvania School of Engineering and Applied Science Research Faculty Position

The Departments of Computer and Information Science, Electrical Engineering, and Mechanical Engineering and Applied Mechanics invite applicants for a research faculty position at the non-tenured assistant

professor level in embedded systems. Those with appropriate experience may be considered at a more senior level. The School is particularly interested in identifying outstanding candidates with expertise in systems support for embedded systems, including but not limited to programming languages, compilers, operating systems, architecture, and system design, with application interests in avionics, networked sensors, MEMS, and robotics.

Candidates should demonstrate an ability to carry out high quality, independently formulated research to obtain research grants essential for support of this position. The School of Engineering and Applied Science has thriving research programs in formal methods, real-time systems, programming languages, robotics, MEMS, networking, and distributed systems, offering many exciting opportunities for research enhancement and collaboration.

To apply, please submit an updated CV, statement of research interests, copies of most significant publications, and the names of at least six references to:

Research Faculty Search Committee  
School of Engineering and Applied Science  
Dept. of Computer and Information Science  
200 South 33rd Street, 556 Moore Bldg.  
Philadelphia, PA 19104-6391  
Email: [amydeitz@cis.upenn.edu](mailto:amydeitz@cis.upenn.edu)

Applications should be received by March 1, 2002 to be assured full consideration. Applications will be accepted until position is filled.

The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

### University of Redlands Department of Mathematics and Computer Science

The University of Redlands invites applications for one or two tenure-track positions in Computer Science, specialty and rank open, to begin in fall of 2002. The second position is offered pending administrative approval. Candidates should have a strong interest in teaching a wide variety of undergraduate computer science courses. Responsibilities include teaching six courses per year, directing student research projects, and engaging in scholarly activity.

Requirements include the Ph.D. in computer science or a related field by September 1, 2002, and evidence of excellence in and a commitment to both undergraduate teaching and scholarship in computer science. We seek candidates with interest and demonstrated ability in working with a diverse student population. The University of Redlands, which enrolls 2000 undergraduates, is a selective, private, comprehensive liberal arts university located in Southern California.

To apply, submit a letter of application, a curriculum vitae, graduate transcripts (unofficial OK), a statement of teaching philosophy, and three letters of reference, at least two of which must address teaching, to:

Dr. Janet L. Beery, Chair  
Department of Mathematics and Computer Science  
University of Redlands  
Redlands, CA 92373-0999

Review of applications will begin on Friday, January 18, 2002, and will continue until the position is filled. The University of Redlands is an EEO employer. We especially encourage women and members of other underrepresented groups to apply.

### University of Rochester Computer Science Department Tenure-track Faculty Position

The Computer Science Department at the University of Rochester invites applications from candidates seeking a tenure-track appointment. Candidates at the Assistant Professor level must have received, or be about to receive, a doctorate in Computer Science or a related discipline, and must demonstrate exceptional potential for both research and teaching. Candidates at more senior levels must possess an outstanding record of scholarly achievement. Research interests in all areas of computer science will be considered, but we are particularly interested in networking, databases, algorithms, and multimedia/graphics.

Our department has a strong record of research publication and external funding. We offer an outstanding research environment, with excellent students and facilities, and an unusually close-knit and collegial atmosphere. Current research interests include artificial intelligence (computational vision; robotics; virtual reality; natural language; knowledge representation), systems (compilers; operating systems and runtime environments; computer architecture; parallel, distributed, and mobile computing), and theory of computation (algorithms; computational complexity; data mining; DNA computing). Total enrollment in the Ph.D. program is approximately 45 students. Further information can be found at <http://www.cs.rochester.edu>.

Applicants should send a curriculum vitae, copies of relevant papers, and the names and addresses of at least three references to:

## Professional Opportunities

Faculty Recruiting Committee  
Department of Computer Science  
University of Rochester  
Rochester, NY 14627-0226

The University of Rochester is an Equal Opportunity employer; women and members of minority groups are strongly encouraged to apply.

### University of San Francisco Computer Science Department Assistant Professor

The Department of Computer Science at the University of San Francisco (USF) invites applications for a full-time tenure-track position at the Assistant Professor level, to begin Fall 2002. Further details on the position are available online at <http://www.cs.usfca.edu/job.html>.  
USF is an AAEOE.

### University of Southern California Computer Science Department

The Computer Science Department at the University of Southern California ([www.cs.usc.edu](http://www.cs.usc.edu)) invites applications for tenure track faculty at all levels and across all areas of computer science. We are particularly interested in outstanding candidates from one or more of the core sub-disciplines of computer science (such as artificial intelligence, systems, or theoretical computer science) who will contribute to the department's cross-cutting strategic thrusts in computation, immersion, interaction, and autonomy.

**Computation:** computational modeling (including simulation and optimization) as well as on new and emerging models of computation especially in neural and genomic computing. **Immersion:** natural and effective interactions among people (both real and virtual), computation, and the world through improved embeddings of each within the others. **Interaction:** a coordinated investigation of distributed information technology across three levels: the network, where components become connected; the grid, where connected components become pools of resources; and organization, where resource pools support collaborative activities. **Autonomy:** intelligent agents embodied in both hardware (robots) and software.

Progress on these strategic thrusts requires research on new theories, technologies, and systems spanning the traditional sub-disciplines of computer science, plus broader syntheses across these areas. USC has a strong tradition of interdisciplinary research. Furthermore, much of this research is fostered by strong links between CS and USC's Information Sciences Institute, Integrated Media Systems Center and Institute for Creative Technology. Candidates should send (i) a cover letter stating their primary research interest and its relation to one or more of the above strategic thrusts; (ii) a CV and (iii) three letters of support to:

Faculty Search Committee  
Computer Science Department  
941 West 37<sup>th</sup> Place, Sal 300  
University of Southern California  
Los Angeles, CA 90089-0781 U. S. A.  
USC is an AA/EO Employer.

### University of Southern California Department of Electrical Engineering- Systems

The Systems Division of the Electrical Engineering Department invites applications for tenured track positions at all faculty levels in the following targeted areas: digital systems including computer architecture, embedded systems and system-on-chip; system level VLSI design with applications to signal processing, communication theory, or biomedical applications; communications with a focus on either coding theory, communication theory, or antenna and propagation aspects of experimental wireless communication. We also seek applicants in several areas of networks, including wireless networking, optical networking, network security, multi-sensor networks, network dynamics and control, and switch architecture and design. Recruitment in networks is carried out in cooperation with the Computer Science Department and the Information Science Institute (ISI).

Applications must include a letter clearly indicating which position specified above is being sought, a detailed curriculum vitae, a one page statement on current and future research directions, and names of at least four professional references. Applicants who are still Ph.D. students are responsible for soliciting reference letters to be sent directly to the address below. Please send material to:

Chair, Faculty Recruitment Committee  
Electrical Engineering-Systems Division  
University of Southern California  
Los Angeles CA, 90089-2560

USC is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.

### The University of Tennessee Department of Computer Science

Knoxville, Tennessee 37996-3450  
The Department of Computer Science seeks to fill a tenure-track faculty position at the rank of Assistant Professor or Associate Professor beginning Fall 2002. Applicants

must have a doctoral degree in Computer Science or a related area. Applicants must have a strong interest in research. Although preference will be given to research areas that complement the department's existing programs, applicants with research interests in any major field in computer science will be considered.

The Department has numerous, fully networked workstations (SUN, IBM, SGI, DEC, DELL) for students and faculty. In addition, the department has parallel computers of various architectures, including several clusters of high-performance workstations and Pentium processors connected via high speed communications. NSF has awarded the department a \$2 million grant to establish a campus-wide computational grid for research on middleware and applications. The department is or has been a member of several national consortia including the NSF Science and Technology Center for Research in Parallel Computing, the DOE Partnership in Computational Science, and NSF's National Partnership for Advanced Computational Infrastructure. Faculty members collaborate with scientists at the Oak Ridge National Laboratory and have access to their facilities.

Please respond to [search@cs.utk.edu](mailto:search@cs.utk.edu). The mailing address is

Search Coordinator  
Department of Computer Science  
203 Claxton Complex  
1122 Volunteer Blvd.  
University of Tennessee  
Knoxville, TN 37996-3450

Additional information about the department is available from URL <http://www.cs.utk.edu>. Position will remain open until an acceptable candidate is found.

UTK is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services.

### The University of Texas at Austin Department of Computer Sciences Tenure Track Positions

The Department of Computer Sciences of the University of Texas at Austin invites applications for tenure-track positions at all levels. Excellent candidates in all areas will be seriously considered. One senior position requires experience in developing and maintaining strong relationships with government agencies and industrial partners.

All tenure-track positions require a Ph.D. or equivalent degree in computer science or a related area at the time of employment. Successful candidates are expected to pursue an active research program, perform both graduate and undergraduate teaching, and supervise graduate students.

The department is ranked among the top ten computer science departments in the country. It has 36 tenure-track faculty members across all areas of computer science. The department participates in the University's Computational and Applied Mathematics interdisciplinary program. Austin, the capital of Texas, is located on the Colorado River, at the edge of the Texas Hill Country, and is famous for its live music and outdoor recreation. Austin is also a center for high-technology industry, including companies such as IBM, Dell, Motorola, Sematech, AMD, National Instruments, Tivoli, Trilogy, Schlumberger, and Intel. For more information please see the department web page: <http://www.cs.utexas.edu>.

To apply, please send a curriculum vita, home page URL, description of research interests, and selected publications, and ask three referees to send letters of reference directly to:

Faculty Search Committee  
Computer Science Department  
University of Texas at Austin  
Austin, Texas 78712 USA

Inquiries about your application may be directed to [faculty-search@cs.utexas.edu](mailto:faculty-search@cs.utexas.edu)

Applications will be considered immediately until the positions are filled. To ensure full consideration, please apply by January 15, 2002. Women and minority candidates are especially encouraged to apply. The University of Texas is an Equal Opportunity Employer.

### The University of Texas at El Paso Human Resource Services

#### Department of Computer Science

UTEP's Department of Computer Science invites applications for at least two Assistant Professors, tenure-track positions, at all ranks to begin in the Fall, 2002. We value excellence in research & education, our environment of collegiality, faculty collaboration across a wide range of interests, & involvement with students outside the classroom. We favor collaborative methods in both teaching & research. We seek colleagues who share these values, have a strong commitment to both education & research, can collaborate with other faculty, can build a strong research program, enjoy working in a culturally diverse community.

The Department is part of UTEP's College of Engineering & offers BS & Ms degrees in computer science &, with the Department of Electrical & Computer Engineering, a Ph.D. degree in Computer Engineering. We have an

internationally distinguished record of research & our teaching program is a nationally recognized model of excellence. UTEP has an enrollment of 15,000 students & is located close to where the Rocky Mountains meet the Rio Grande. Our campus echoes the beauty of the surrounding high desert. El Paso, a highly livable, bi-cultural community of 700,000 people, is a major meeting point between the United States & Latin America & offers good, affordable housing.

We are particularly interested in applications in the area of theory, interval of soft computing, architecture, software engineering, & human computer interaction, & will consider outstanding applications in other areas of computer science. Candidates must hold a Ph.D. in Computer Science or a closely related field. Send a curriculum vitae, & at least four professional references to:

Faculty Recruiting Committee  
UTEP, Department of Computer Science  
Computer Science Bldg., Rm. 234  
El Paso, Texas 79968-0518

Information about the department is available at <http://www.cs.utep.edu>. Send e-mail inquiries to [recruiting@cs.utep.edu](mailto:recruiting@cs.utep.edu). The University does not discriminate on the basis of race, color, national origin, sex, religion, age, disability or sexual orientation in employment or the provision of services.

### University of Toronto

#### The Edward S. Rogers Sr. Department of Electrical and Computer Engineering

The ECE Department at the University of Toronto is undergoing a major expansion and is inviting applications for faculty positions as described below.

##### Endowed Chair in Software

This is a senior position for a person expected to have a major impact in a first-class academic environment for research and teaching in software systems. The Chair is open to all areas of research in software, such as systems software, software engineering, databases, and distributed systems.

##### Tenure-Track Faculty Positions

Several tenure-track positions are available in all areas of computer engineering, including architecture, systems software, distributed systems, embedded systems, VLSI systems, graphics, and multimedia. The positions are at the Assistant Professor level, but exceptional candidates at the Associate or Full Professor level will also be considered.

The ECE Department consistently ranks among the top 10 ECE departments in North America. It attracts outstanding students, has excellent research and teaching facilities, and is ideally located in the middle of a vibrant cosmopolitan city. Additional information can be found on our web page: <http://www.ece.toronto.edu>.

A Ph.D. degree is required, normally in electrical engineering, computer engineering, or computer science. Applicants should send a curriculum vitae, a statement of teaching and research interests, and a list of at least three references to:  
Professor Safwat G. Zaky, Chair  
Dept. of Electrical and Computer Engineering  
University of Toronto  
10 King's College Road  
Toronto, Ontario M5S 3G4  
Canada  
The search will continue until the positions are filled.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.

### University of Vermont

#### Faculty Positions in Computer Science

After a successful search for two faculty members in 2001, the Department of Computer Science at the University of Vermont invites applications for two additional tenure-track faculty, commencing with the 2002-03 academic year. The University of Vermont, one of the top public national universities ([http://www.usnews.com/usnews/edu/college/rankings/natudoc/natudoc\\_pubs.htm](http://www.usnews.com/usnews/edu/college/rankings/natudoc/natudoc_pubs.htm)), is located in Burlington, Vermont. It offers a supportive research environment in a relatively small city that repeatedly has drawn national attention for offering a high quality of life. The greater Burlington area includes 125,000 people, and is situated on the shores of Lake Champlain between the Green Mountains of Vermont and the Adirondack Mountains of New York. Burlington and the surrounding area provide an environment rich in cultural, family, and sporting activities. The Department of Computer Science offers programs in the College of Engineering and Mathematics and the College of Arts and Sciences, as well as a joint program with the School of Business Administration.

Position 1: Associate or Assistant Professor. Candidates in networking and systems, software engineering, programming languages, human-computer interaction or parallel/distributed computing are most sought. Candidates in any area of computer

science will be considered seriously. Our faculty are involved in the forefront of research in knowledge and data engineering, software engineering, and computational sciences. We are seeking to complement and further strengthen our existing research and teaching activities in these areas.

Position 2: Assistant Professor in COMPUTATIONAL BIOLOGY. A new concentration in computational biology has been established in the Colleges of Medicine, Agricultural and Life Sciences, Engineering and Mathematics, and Arts and Sciences. Candidates with research interests or experience in computational biology or bioinformatics are invited to apply. Through a major Department of Energy grant that commenced in July 2000, the startup package includes summer support, seed research grant, and reduced teaching obligations.

Candidates for either position should have a strong research record, hold a doctorate in Computer Science or a closely related field, and have broad teaching abilities and interests. Current teaching responsibilities typically consist of three computer science courses per year with average enrollments of 25 students. These responsibilities will be reduced to two courses per year for the first two years for successful position 2 candidates. Please send a letter of interest indicating the position sought, a curriculum vitae, a statement of teaching experience and interests, a statement of research interests and aspirations to, and arrange for at least three letters of reference to be sent to:

Chair, Faculty Search, Position (1 or 2)  
Department of Computer Science  
University of Vermont  
Burlington, VT 05405

Complete applications received by January 21, 2002 will be fully considered. For more information about the Department and the University please see <http://www.cs.uvm.edu> or send email to [cssearch@cs.uvm.edu](mailto:cssearch@cs.uvm.edu).

The University of Vermont is an Affirmative Action/Equal Opportunity employer and encourages applications from women and members of minority groups.

### University of Victoria Department of Computer Science Faculty Positions

Applications are invited for assistant and associate professor tenure track positions in Computer Science. All areas will be considered, but we are especially interested in software engineering, data engineering, computational biology, theoretical computer science, and networks and distributed systems.

Full details are on-line at <http://www.csc.uvic.ca/news/career/tenure.html>

### The University of Virginia Department of Computer Science

The University of Virginia's Department of Computer Science invites applications for multiple tenure track and tenured faculty positions at all ranks. Outstanding candidates in all areas of Computer Science will be considered. Research faculty (non tenure-track) openings of all ranks are also available. Our exciting and very strong Department has a first rate experimental computer science research program and has in place an innovative undergraduate CS curriculum. We are looking for candidates who are or have the potential to become outstanding in both research and teaching. Ph.D. required. Positions open until filled. Salary commensurate with experience.

Send a resume and the names of three references to:

Professor Jack Stankovic, Chair  
Department of Computer Science  
151 Engineer's Way  
P. O. Box 400740  
University of Virginia  
Charlottesville, VA 22904-4740.

The University of Virginia is an Equal Opportunity/Affirmative Action Employer. <http://www.cs.virginia.edu>

### University of Washington Department of Computer Science & Engineering Tenure-Track, Research, and Teaching Faculty

The University of Washington's Department of Computer Science & Engineering has several open positions in a wide variety of technical areas in both Computer Science and Computer Engineering, and at all professional levels. Most CSE research areas are of interest, but especially those that broaden the department in emerging areas or that strengthen existing areas that are below critical mass. A moderate teaching load allows time for quality research and close involvement with students. We expect candidates to have a strong commitment both to research and to teaching.

The department is primarily seeking individuals at the Assistant Professor rank; however, under unusual circumstances and commensurate with the qualifications of the individuals, appointments may be made at the rank of Associate Professor or Professor. We are also seeking non-tenured Research Assistant Professors and Lecturers. Applicants for the tenure-track and research positions

(cont'd)

## Professional Opportunities

## CHAired FACULTY POSITIONS WIRELESS COMMUNICATIONS AND NETWORKING

The Department of Computer Science & Engineering (CS&E), the Department of Electrical & Computer Engineering (ECE), and the Digital Technology Center (DTC) at the University of Minnesota invite applications for four faculty positions with endowed chairs (three ADC Telecommunications chairs and one Qwest chair). The appointments will be at the rank of Associate or Full Professor with tenure in one of these departments, or, potentially in related disciplines represented within the DTC. Areas of interest span all aspects of wireless and mobile communications, networking, multimedia distribution, distributed computing, and storage. Applicants must possess a distinguished research record, demonstrated ability in establishing and leading a highly visible research program, and a commitment to teaching at the graduate and undergraduate levels. A Ph.D. in a relevant discipline is required.

The appointment will afford the right individuals the opportunity, resources, and flexibility to build a top-notch research program. In addition to these four chaired faculty positions, several positions are available in the CS&E and ECE departments as part of the "digital technology initiative." This initiative affirms the strong commitment of the State of Minnesota in strengthening the University as a leader in the area of digital technology. Construction is now underway on a \$56.6 million University-wide Digital Technology Center, funded by the State of Minnesota, in which ECE, CS&E, and the outstanding new faculty members will play a major role. The DTC will be the home for the University of Minnesota Supercomputing Institute, the Laboratory for Computational Science and Engineering, the Telecommunications and Advanced Networking Laboratory, and a Software Engineering and Internet Technologies Laboratory. The four new chaired faculty will find that DTC offers tremendous opportunities for collaborative and interdisciplinary research. For more information about the CS&E and ECE Departments, please visit their World Wide Web home pages at [www.cs.umn.edu](http://www.cs.umn.edu), and [www.ece.umn.edu/information/employment/ece/faculty/](http://www.ece.umn.edu/information/employment/ece/faculty/).

Applicants should submit a curriculum vitae and the names of at least three references to:

**Prof. G. B. Giannakis, DTC Search Committee Chair**  
**c/o Ann Johns, Assistant Director for Human Resources**  
**University of Minnesota Digital Technology Center**  
**599 Walter Library, 117 Pleasant St. SE**  
**Minneapolis, MN 55455**

Review of completed applications will begin February 1, 2002, with the search remaining open until the positions are filled.

## UNIVERSITY OF MINNESOTA

The University of Minnesota is an Equal Opportunity Educator and Employer.

must have earned a doctorate by the date of appointment; those for the lecturer position must have earned at least a Master's degree by the date of appointment. Information about the department can be found on the web at <http://www.cs.washington.edu/>. Please send a letter of application, a resume, statement of research and teaching interests, and the names of four references to:

Faculty Recruiting Committee  
 Computer Science & Engineering  
 University of Washington  
 Box 352350  
 Seattle, WA 98195-2350

Applications received before February 1, 2002 will be given priority consideration. The University of Washington is a recipient of a new National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. The University of Washington is building a culturally diverse faculty and encourages applications from female and minority candidates. AA/EOE.

### University of Wisconsin-Milwaukee Computer Science

The Computer Science Program at the University of Wisconsin-Milwaukee is seeking qualified candidates to fill several tenure track faculty positions. We invite applications from strong candidates at all levels and in all areas of Computer Science, subject to the needs of the Department. All candidates for faculty positions should have a demonstrated promise in research and teaching in Computer Science. Senior candidates should have excellent research records.

The Computer Science Program at UWM is poised for continued development. Our Program has an excellent record in hiring outstanding junior faculty and in helping them develop their careers. Several of the eligible faculty in our Program have received the NSF Early CAREER Award. Program faculty are engaged in research projects that span many areas including Artificial Intelligence, Computational Geometry, Computer Graphics, Cryptography and Data Security, Distributed Systems, and Programming Languages and Software Systems. Many of the projects include collaborative work with researchers from other academic units, institutions and industrial organizations.

Our University, the home of about 24,000 students, is located in a very pleasant residential neighborhood near the shores of Lake Michigan. Our location in a major metropolitan area helps facilitate easy interactions with industry and affords many cultural and recreational activities.

Applicants should send a hard copy vita by post or fax, and we also request at least three letters of reference be sent to:

Faculty Recruitment Coordinator for  
 Computer Science  
 Department of Electrical Engineering and  
 Computer Science  
 University of Wisconsin-Milwaukee  
 P. O. Box 784 Milwaukee WI 53201-0784  
 E-mail: [recruit@cs.uwm.edu](mailto:recruit@cs.uwm.edu) (for inquiries only)  
 Fax: 414-229-6958

Evaluation of all candidates will begin Fall of 2001 and will continue until the positions are filled. Female and minority candidates are strongly encouraged to apply. Faculty applications must be accompanied by a statement of plans for research and teaching. Please visit our website at <http://www.cs.uwm.edu> for periodic updates on the status of our recruitment.

UWM IS AN EQUAL OPPORTUNITY  
 INSTITUTION COMMITTED TO  
 DIVERSITY.

### University of Wyoming Department of Electrical and Computer Engineering

Pursue your academic career in the scenic Rocky Mountains. The departments of Electrical & Computer Engineering and Computer Science seek candidates for a tenure track position in the area of computer engineering. A Ph.D. in Electrical Engineering, Computer Engineering, or Computer Science is required. The rank will depend on qualifications.

Qualified candidates in any area of computer engineering are encouraged to apply. Teaching and research interests in real-time systems, including the hardware and firmware needed to put real-time processing in embedded systems are particularly desirable. VLSI design, hardware descriptive languages, and formal methods are also of interest. The successful applicant will have a major role in the Computer Engineering degree program, establish a funded research program, teach at both the graduate and undergraduate levels, and advise MS and Ph.D. students. There are several research collaboration opportunities with faculty in both ECE and CS.

The University of Wyoming is a land-grant institution of approximately 10,000 students, located in Laramie, Wyoming and classified as a "Doctoral/Research Extensive" university. Laramie, only 130 miles north of Denver, is a friendly town offering a reasonable cost of living; we have clean air, 300 days of sunshine, no traffic jams, excellent university cultural programs, and easy access to outdoor activities in the Rocky Mountains with the Snowy Range just 35 miles west of town. Interested applicants should send letter of application, curriculum vitae, and contact information for three professional references to:

Dr. John Pierre, Search Committee Chair  
 University of Wyoming, PO Box 3295  
 Laramie, WY 82071-3295  
 Phone: 307-766-2240  
 e-mail: [ece@uwoyo.edu](mailto:ece@uwoyo.edu)

Screening of applicants will begin January 15, 2002 and continue until the position is filled. Additional information about the departments may be found at [www.eng.uwoyo.edu](http://www.eng.uwoyo.edu). The University of Wyoming is an AA/EEO employer.

### Vanderbilt University Department of Electrical Engineering and Computer Science

The Department of Electrical Engineering and Computer Science invites applications for faculty positions in the areas of computer science and computer engineering. We are interested in candidates at the Assistant Professor and senior levels. Applicants in all areas are encouraged to apply and will be considered; however, preference will be given to candidates in the areas of embedded and hybrid systems, computer networks, and computer databases. Applicants should have a doctorate or equivalent degree in computer science, computer engineering, or a closely related discipline.

Applicants should send a curriculum vitae, copies of representative publications, and the names, addresses (postal and e-mail), and telephone numbers of three or more references. In addition, each applicant should submit statements describing research and teaching goals. The application package should be mailed to:  
 Faculty Search Committee  
 Department of Electrical Engineering and  
 Computer Science  
 Box 1679 Sta.-B  
 Vanderbilt University  
 Nashville, TN, 37235-1679.  
 Electronic submissions and inquiries may

be made to [eccs-search@vuse.vanderbilt.edu](mailto:eccs-search@vuse.vanderbilt.edu). Applications will be processed as they are received, and continue to be considered until all positions are filled. Vanderbilt University is an Equal Opportunity Employer.

Further information about the department may be found at <http://eccs.vanderbilt.edu>.

### Virginia Tech Department of Computer Science Software Engineering Systems/Networking

The Department of Computer Science seeks two Assistant Professors starting in August 2002 to complement departmental research, participate in innovative teaching practices, and improve faculty diversity. Exceptional individuals at senior ranks or in other areas will also be considered. Additional information is available at <http://www.cs.vt.edu>.

We welcome applicants in two research areas: software engineering and systems/networking. The department has an outstanding record of multidisciplinary research, and has projects in human-computer interaction, high performance computing, problem solving environments, digital libraries, and bioinformatics. These projects will be enhanced by the University's newly opened \$26M Advanced Communication and Information Technology Center.

Virginia Tech is located in Blacksburg, a scenic, lively, All-American Award winning town in southwest Virginia with affordable housing. Nearby is the white water of the New River and 1.7M mountainous acres of national forest.

Applicants should send a curriculum vitae, a 1-2 page research statement, a 1-2 page teaching statement, and have at least three letters of reference sent to Faculty Search, Dept. of Computer Science, 660 McBryde Hall, Virginia Tech, Blacksburg, VA 24061. Review of candidates will begin February 1, 2002, and continue until the positions are filled.

The College of Arts and Sciences is deeply committed to recruiting, selecting, promoting, and retaining women, persons of color, and persons with disabilities. We strongly value diversity in the college community, and seek to assure equality in education and employment. Individuals with disabilities desiring accommodations in the application process should notify Dr. Dennis Kafura, 540/231-6931, TTY: 800/828-1120.

## Professional Opportunities

### Virginia Tech

#### Department of Computer Science Faculty Position

Virginia Tech's Department of Computer Science seeks applicants for a tenure-track position at the rank of Assistant Professor to start in August 2002 at the Northern Virginia Center in Falls Church, VA. Exceptional candidates at the senior level will also be considered.

The Computer Science program at the Northern Virginia Center offers graduate education leading to the Master/Ph.D. of Computer Science. The seven full-time NVC-based faculty plus the Blacksburg-based faculty form the department of Computer Science at Virginia Tech. The faculty work collaboratively on research and teaching through state-of-the-art teleconferencing facilities over the University's Net.Work.Virginia. The Computer Science program at the Northern Virginia center is located strategically in suburban Washington DC, a bustling area with a high concentration of information technology companies, government and research funding agencies.

Candidates are expected to demonstrate strong research potential and solid teaching skills. We are particularly interested in candidates with interests in databases, E-commerce, digital government, distributed multimedia, mobile computing, internet computing, software engineering and virtual reality. Strong candidates with research interests in other areas will also be considered. The current teaching load per faculty is 3 courses per year.

Candidates must have a Ph.D. (or expect completion by date of appointment) in Computer Science or a closely related field. Applicants should send a curriculum vitae, a 1-2 page statement of professional plans and goals, and contact information for three references, to:

Faculty Search Committee  
Department of Computer Science  
7054 Haycock Road  
Falls Church, VA 22043

We welcome electronic applications to <cs-search@nvc.cs.vt.edu>. Review of candidates is ongoing and will continue until the position is filled, but priority will be given to applications received by January 20, 2002. For more information, see <<http://www.nvc.cs.vt.edu>>

Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities, and people with disabilities. Individual with disabilities desiring accommodation in the application process should notify Ms. Charmaine Carter on 703.538.8428 or call TTY: 1.800.828.1120.

### Western Washington University Computer Science Department Full professor/chair and assistant professor

The Department of Computer Science seeks faculty for two positions: an appointment at the rank of Professor to serve as Chair of the Department and an entry-level Assistant Professor appointment. Compensation for both positions is competitive, based on rank and experience.

The Department has achieved a substantial reputation for producing high quality graduates. Currently the Department is comprised of eight full-time, tenure-track faculty and several adjunct faculty. The Department will move into a new building within two years. The Department offers B.S. (accredited by ABET) and M.S. degrees. The Department administers an Internet Studies Center, which offers certification in Web technologies. An industry board of advisors comprised of executives from the region's leading companies provides substantial support (equipment, scholarships, internships) and guidance.

For the Chair Position:

Required: Candidates must have a Ph.D. in Computer Science and be qualified to assume the rank of Professor at Western Washington University-demonstrating evidence of teaching effectiveness and significant scholarly contributions to the field. Demonstration of one year of administrative experience, success in extramural fundraising, and interpersonal and communication skills are essential.

Preferred: Evidence of success in developing curriculum, in developing industrial and other external relations, and in supervision of students in development and research.

Desired: Experience in the software industry. Experience working with a diverse student body and staff.

To ensure full consideration, application materials must be postmarked no later than February 1, 2002.

For the Assistant Professor Position:

Required: Ph.D. in Computer Science or closely related discipline and evidence of strong teaching abilities and potential for scholarship.

Preferred: Expertise in a core area of Computer Science and an established research program documented by refereed publications.

Desired: Experience in involving undergraduates in research, the ability to contribute to a graduate program, industry experience, and a willingness to work with student organizations.

To ensure full consideration, application materials must be postmarked no later than March 1, 2002.

Applications must include: a letter of application; current CV; copies of three most recent publications; evidence of teaching effectiveness; and names, titles, and phone numbers of three references. Information about the campus and community is available at <http://www.wvu.edu>. AA/EOE. For disability accommodation: (360) 650-3306 (V), (360) 650-7607 (TTY). For full position announcements see: [www.wvu.edu/~wvujobs](http://www.wvu.edu/~wvujobs).

### Williams College Department of Computer Science

The Department of Computer Science at Williams College invites applications for an opening at the Assistant Professor level for the fall of 2002. A senior appointment is possible in exceptional circumstances. This is a tenure-track position with a three-year initial term. New faculty will join the seven current members of the department in supporting a thriving undergraduate computer science major. Candidates should have a commitment to excellence in teaching, an active research program, and should, by September 2002, possess a Ph.D. in computer science or a closely related discipline. We are particularly interested in candidates capable of supporting both teaching and undergraduate research in areas of computer science that cross disciplinary boundaries.

Williams College is a highly selective, coeducational, liberal arts college of 2100 students located in the scenic Berkshires of western Massachusetts. The Department of Computer Science offers a congenial working environment with small classes, excellent students and state-of-the-art facilities. Faculty will normally teach three courses each year, along with associated labs.

Salaries are competitive and fringe benefits for faculty are attractive. Electronic mail may be sent to [lenhart@cs.williams.edu](mailto:lenhart@cs.williams.edu).

Applications may be sent to:

Professor William Lenhart, Chair  
Department of Computer Science  
Room 309 TCL, 47 Lab Campus Drive  
Williams College  
Williamstown, MA 01267

Applications should include a vita, teaching and research statements, and contact information for three references, at least one of whom can speak to the candidate's promise as a teacher. Applications received by January 15, 2002 will receive full consideration. Williams College is an equal opportunity, affirmative action employer. Women and members of minority groups are strongly encouraged to apply.

### Yale University Computer Science Department Junior Faculty Positions

The Yale Computer Science Department is looking for highly qualified candidates for junior faculty positions beginning in the 2002-2003 academic year. We seek to expand and broaden both the applied and theoretical sides of our research and teaching program, building on existing strengths in algorithms and complexity theory, artificial intelligence, computational science and applied mathematics, distributed computing, machine learning, programming languages and compilers, security and cryptology, and vision and robotics. Strong candidates in all areas will be considered; high-priority areas include computational biology, bio-informatics, electronic commerce and market-based computation, databases, graphics and multimedia, and networking.

Applicants are expected to excel in both research and teaching. They will find many opportunities for research collaborations both inside and outside the Computer Science department. Interdisciplinary work is encouraged, with Yale's world-class faculty in such computationally active fields as biology, chemistry, economics, engineering, geophysics, management, mathematics, medicine, psychology, physics, and statistics. Yale faculty regularly have the opportunity to teach excellent students, both graduate and undergraduate, in relatively small classes.

Candidates should hold a Ph.D. in computer science or related discipline. Applications submitted by January 1, 2002 will be given highest priority. Qualified women and minority candidates are encouraged to apply. Yale is an affirmative action/equal opportunity employer. Our home page may be found at [www.cs.yale.edu](http://www.cs.yale.edu).

Send vitae and have at least three letters of reference sent to:

Faculty Recruiting Committee  
Department of Computer Science  
Yale University  
P. O. Box 208285  
New Haven, CT 06520-8285

## CRA Welcomes New Academic Members

California State University, Chico (CS)  
California State University, Hayward (MCS)  
George Washington University (CS)  
Georgia State University (CIS)  
Georgia State University (CS)  
University of Georgia (CS)  
University of Louisville (CECS)  
University of Manitoba (CS)  
University of New Brunswick (CS)  
University of New Hampshire (CS)  
University of New Mexico (EECE)  
University of North Carolina, Charlotte (IT)  
University of Redlands (MCS)  
University of Texas, Arlington (CSE)  
University of Toronto (ECE)  
University of Washington, Tacoma (CSS)

## UBIQUITY

### Grace Hopper Celebration of Women in Computing 2002 Conference

Hyatt Regency Vancouver,  
British Columbia, Canada

October 9-12, 2002

Details:  
<http://gracehopper.org>

## COMPUTING RESEARCH NEWS

Vol. 14/No. 1

*Computing Research News* (ISSN 1069-384X) is published five times per year, in January, March, May, September, and November. Copyright 2002 by the Computing Research Association (CRA), 1100 Seventeenth Street, NW, Suite 507, Washington, DC 20036-4632; tel. 202-234-2111. All rights reserved. Material in CRN is not endorsed by CRA nor intended to reflect any official positions of CRA or its board.

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**Change of Address:** Note that a change of address must include the old and new addresses with ZIP+4 if available. Please include a street address or PO Box.

**Postmaster:** Send address changes to: CRA, 1100 Seventeenth Street, NW, Suite 507, Washington, DC 20036-4632. Postage paid at Washington, DC.

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## CRA CONFERENCE AT SNOWBIRD 2002 ♦ JULY 14-16, 2002 ♦ SNOWBIRD, UTAH

**About the Snowbird Conference:** The biennial CRA Conference at Snowbird is the flagship conference for the leadership of the North American computing research community.

**Who should attend:** Computer science, computer engineering, and information technology department chairs; assistant, associate, and prospective chairs; directors of graduate or undergraduate education. Industry or government research lab/center directors. Professional society or government leaders in computing.

**Information about the conference site:** The Snowbird Resort is located 30 miles from Salt Lake City, in the Wasatch Mountains. A top-rated ski resort in the winter, off-season at Snowbird offers hiking amidst beautiful scenery.

**This year at Snowbird:** The conference program will include plenary sessions, a "State of the CRA" address, presentation of the CRA Distinguished Service and A. Nico Habermann Awards, and numerous parallel workshop sessions. Below is the draft program, as of press time. See the CRA website (<http://www.cra.org>) for an updated program.

### Plenary Sessions

One plenary will focus on **Diversity in the Computing Field**, with Richard Tapia (Rice University) as main speaker and Bryant York (Portland State University) as session chair. Other plenaries are being planned on **Bioinformatics** and on **Homeland Security**.

### Workshop Sessions

- **Setting Research Directions**  
What will be the dominant new research directions for the computing field? This session looks at current thinking from the National Science Board, findings from a recent NRC study, and predictions from research leaders in the field.  
Chair: Mary Jane Irwin (Penn State University)
- **Trends in Research Funding**  
This session reports on federal research funding priorities and initiatives. What comes after ITR? What is on the horizon for PITAC? How are federal funding agencies being affected by the events of September 11?  
Chairs: Jeff Vitter (Duke University) and Dan Reed (Univ. of Illinois at Urbana-Champaign)
- **Computer Science and Other Disciplines: Mainframe, Client-Server, or Peer-to-Peer?**  
A 1992 NRC report urged computer scientists to broaden their field; a current NRC study urges the field to "examine the intellectual interplay between computer science and other disciplines." What should be the relationship between computer science and other disciplines in academia? In industry? What makes these questions so difficult?  
Chair: Margaret Wright (NYU)
- **Developing a Research Environment**  
What are the unique issues related to fostering research in departments whose mission has not traditionally focused on research—e.g., in colleges, MS-granting schools, or schools with relatively new Ph.D. programs?  
Chairs: Sheila Castaneda (Clarke College) and David Novick (Univ. of Texas, El Paso)
- **Bioinformatics, Genomics, Proteomics**  
Bioinformatics is being touted as the hottest research area around. This session examines issues for CS&E in bioinformatics research, including funding, academic structures supporting interdisciplinary programs, and research opportunities.  
Chair: Oscar Garcia (Wright State University)
- **Research in Corporate Labs**  
These are uncertain times for many industry research labs. What does the future hold? How do you conduct fundamental research while satisfying corporate demands for product payoff? What types of research are best suited to industry labs? What are strategies for success?  
Chair: Dick Waters (Mitsubishi Electric Research Labs)
- **Industry/University Collaboration: What Works? What's New?**  
This session explores some of the basic framework issues of industry-university collaboration, concentrating on specific examples of collaboration that have been tried in the past as well as new models aimed at more effective collaborations and technology transfers.  
Chairs: Tom Henderson (University of Utah) and Dave Waltz (NEC Labs)
- **Issues and Models for Academic-Industry Agreements**  
The success of academic-industry collaborations often hinges on forging suitable agreements—e.g., for intellectual property, internships, joint projects, funding, and commercialization oversight. This session explores issues related to academic-industry agreements, including a report on the CRA Model Agreements task force.  
Chairs: J. Strother Moore (Univ. of Texas—Austin) and Gabby Silberman (IBM)
- **Industry Roundtable**  
This session is a roundtable discussion of issues facing industry research labs, as well as a discussion of how CRA can serve its industrial members.  
Chairs: Jim Foley (Georgia Tech; CRA board chair) and Dave Waltz (NEC Labs)
- **Law, Policy, and Research**  
New laws—DMCA, UCITA, the data quality act—are affecting computing research and researchers. What is at stake for departments whose faculty are involved in research that may collide with these laws? What role should the computing community play in public policy issues?  
Chairs: Andrew Hume (AT&T Labs) and Jon Peha (Carnegie Mellon University)
- **The Business of Publication**  
The publishing field has changed significantly in recent years. This session looks at the role of professional societies, commercial publishers, and lightweight publishing organizations in the world of on-line journals and digital libraries. It also examines how new e-journals fit into universities' promotion and tenure practices.  
Chair: Bob Allen (University of Maryland; ACM Publications Board Chair)
- **New Academic Structures Involving Computing, Information Science, and Technology**  
This session presents experiences of several recently formed academic units that address various aspects of core and multidisciplinary computing and information science and technology. It also reports on recommendations of a recent CRA task force on the scope of CRA membership and programs.  
Chair: Bobby Schnabel (University of Colorado)
- **When IT Becomes a Profession**  
Information Technology is rapidly gaining recognition as a field of study and research and is evolving into a profession. What position will the CS&E disciplines hold in this field? How will the broad interest in IT affect computing research? What reforms of undergraduate curricula are needed to meet the demands of industry for IT professionals?  
Chair: Peter Denning (George Mason University)
- **Undergraduate Curriculum and Accreditation Advances**  
New curricular guidelines for undergraduate CS programs have been approved by ACM and IEEE-CS. CSAB has been integrated with ABET to provide accreditation in computing (not just CS!). New information systems criteria are being applied to accredit programs in 2001-02. This session will provide the latest on these curriculum and accreditation activities.  
Chair: Stu Zweben (Ohio State)
- **New Pressures on CS&E Academic Units**  
This session will share experiences in dealing with new pressures that affect the management of CS&E academic units but are not covered in other Snowbird sessions, such as academic dishonesty given extensive web materials, managing non-academic staff, and marshaling sufficient TA support for large classes.  
Chair: Frank Tompa (University of Waterloo)
- **Recruiting and Retention of Faculty**  
There is widespread concern about the difficulties that academic departments are facing in the recruitment and retention of faculty. Various facts, causes, and potential solutions will be discussed. Results from an ongoing NSF-funded study will be presented.  
Chair: Jack Stankovic (University of Virginia)

### Additional Opportunities at Snowbird:

- **NSF Research Infrastructure Workshop** – July 12-14
- **CRA Board of Directors Meeting** – July 13-14
- **Workshop for New Department Chairs** – July 14 – Randy Bryant (Carnegie Mellon University) and Kathy McKeown (Columbia University)
- **IT Deans' Meeting** – July 16 – Peter Freeman (Georgia Tech)

**For program details and registration information, please see the CRA website at <http://www.cra.org>; email [snowbird@cra.org](mailto:snowbird@cra.org); or call 202-234-2111.**

**Conference Sponsors:** American Association for Artificial Intelligence; Lucent Technologies, Bell Labs; Microsoft Research; Telcordia Technologies

**Program Committee: Co-Chairs:** Phil Bernstein (Microsoft Research)—Labs/Centers Chair; Leah Jamieson (Purdue University)—Academic Chair.

**Members:** Ron Brachman (AT&T Research), Oscar Garcia (Wright State University), Tom Henderson (University of Utah), Jim Horning (InterTrust Technologies), Jack Stankovic (University of Virginia), Frank Tompa (University of Waterloo), Dick Waters (Mitsubishi Labs), Roger Webb (Georgia Tech, ECE/DA)