

COMPUTING RESEARCH NEWS

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Boldly Exploring the Endless Frontier

By Ed Lazowska, Martha Pollack, Dan Reed, and Jeannette Wing

During another time of great transition, near the end of World War II, President Roosevelt's advisor, Vannevar Bush, wrote a seminal essay entitled "Science: The Endless Frontier" in which he sagely observed that "... without scientific progress no amount of achievement in other directions can insure our health, prosperity, and security as a nation in the modern world." This essay was the progenitor of the U.S. National Science Foundation (NSF) and its model of peer-reviewed fundamental, curiosity-driven research, a model now widely emulated around the world.

A year later, Dr. Bush wrote a second essay entitled "As We May Think" in which he described the enduring research paradox of our time:

But there is increased evidence that we are being bogged down today as specialization extends. The investigator is staggered by the finds and conclusions of thousands of other workers—conclusions which he cannot find time to grasp, much less to remember, as they appear. Yet specialization becomes increasingly necessary for progress, and the effort to bridge between disciplines is correspondingly superficial.

The essay goes on to describe a device he called the Memex (Memory Extender), a mechanized hypertext system for managing copious amounts of information for rapid retrieval. This fascinating juxtaposition of discovery as an endless frontier with a technological vision of information retrieval is one that we are only now realizing—with deep text search, semantic analysis and social tagging tools on the web—after sixty years of research and development. Vision really matters.

Computing research is among the best embodiments of the discovery-driven, endless frontier. As we look ahead, it is clear our discipline faces both challenges and opportunities: challenges to adjust our culture and raise our aspirations, and opportunities to engage and empower 21st century discovery and innovation both within our field and across diverse disciplines.

Discussing the Future

On November 10, NSF CISE, the CRA and the Computing Community Consortium convened a one-day summit in Washington, DC, to discuss

the future of computing research. Attendees included selected heads of major computing departments and information science schools, as well as industrial research leaders. We all came together to discuss some key questions:

- Are there signs and guideposts for how to move the field forward most effectively—especially without losing the essence of our identity and the strength of our contributions?
- What is the appropriate balance between curiosity-driven research and technological engagement, the essence of what Donald Stokes called 'Pasteur's Quadrant'?
- As stewards of the field, how do we ensure that the right decision processes are in place—for faculty hiring and promotion, graduate student admissions and mentoring, and funding practices and processes—to create the most vibrant and exciting future?
- How do we enhance our community's willingness to value professional service, which can increase advocacy for our field both within our own institutions and nationally, leading to the resources needed to fuel innovation?

Discussion Topics

Within the broad framework of these questions, we asked the participants to discuss four topical and timely themes in small groups, with plenary discussions of the small group discussions.

1. Go Outside Your Box.

The number of opportunities for collaboration continues to grow explosively, both among computing researchers (intradisciplinary collaboration) and among computing and other disciplinary scientists (multidisciplinary collaboration). It is widely recognized that much of the excitement occurs "at the interfaces." However, we still struggle to hire, promote and support faculty engaged in such collaborations. How do we advise junior faculty on best practices for collaboration? How do we encourage our colleagues in other fields to see us as more than programmers—as experts in transformative "computational thinking?" What kinds of institutional or organizational barriers do collaborative projects and participants face? As a community, are we ready to build the consensus necessary for "Big Science" collaborations? Even within a narrow field of endeavor, there are

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HIGHLIGHTS from the Computing Community Consortium

Got press releases? The CCC and CRA have launched a new "Computing Research Highlight of the Week" (see: <http://www.cra.org/ccc/rh-IM2GPS.php>) that features recent press releases showcasing high-impact computing research results. When your institution issues a press release describing a particularly noteworthy accomplishment, use our web form to submit it for consideration. Our goal is to draw broader attention to these accomplishments, and to encourage institutions to write press releases that are as interesting and broadly accessible as possible.

Got game-changing accomplishments? A recent feature of the CCC blog asked readers to help identify "game-changing advances from computing research conducted in the past 20 years" (see <http://www.cccb.org/2008/11/04/game-changing-advances-from-computing-research/>). Take a look at what people said! We'll keep you updated as we refine the list. The "greatest hits" will be featured at a symposium in Washington, DC, on March 25—watch the CCC home page (<http://www.cra.org/ccc/>) for news on this.

Got vision? A core activity of CCC is to facilitate the articulation of compelling research visions by groups from the computing research community, and to help transition those visions into initiatives. For information on how to propose a workshop or other activity, see <http://www.cra.org/ccc/vision.php>.

Got a desire to get outside your box? CCC, CRA, and NSF CISE recently co-organized a workshop called "Computing Research Outside the Box" whose goal was to enlist leaders of our field in brainstorming strategies to keep the field vibrant. See "Boldly Exploring the Endless Frontier" article above and a CCC blog post at: <http://www.cccb.org/2008/11/12/computer-science-outside-the-box/>. More to follow on this topic!

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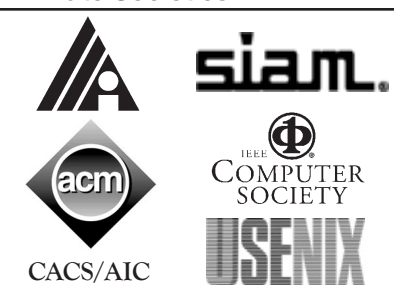
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Expanding the Pipeline

The Hard Work of Building Bridges

By Chris Stephenson

The current enrollment crises in computer science and informatics at the post-secondary level have led to a much broader recognition of K-12 education as a critical partner in addressing pipeline and equity issues. The good news is that the current crisis has increased the willingness of many departments and faculty to reach across the educational barriers that have traditionally separated us. The bad news is that many are still not sure how to do so in a way that can lead to sustained improvements at both levels.

By early 2000, ACM was beginning to hear rumors of dropping enrollments in K-12 computer science classes, so it launched the ACM K-12 Task Force to get a better sense of the nature of the problem and its possible ramifications for the pipeline. What the Task Force uncovered can best be described as a multi-layered mess that included no real research on what teachers were teaching or how many students were taking computing courses, isolated and discouraged teachers, no curriculum standards, and almost no professional development to help teachers maintain and improve their technical and pedagogical skills.

The Task Force also noted that computer science was the only K-12 discipline with no subject-based professional association operating at the K-12 level. This meant there was nobody to represent and advocate for computer science in an environment:

- Subject to significant social and political pressures,
- Subject to multiple stakeholders with competing agendas and ideologies,
- Subject to the politics of scarcity,
- Where the practitioner base is overwhelmed and underpaid,
- Where project sustainability is a constant struggle,
- Where real, systemic change is rarely achieved, and
- Where incremental change requires commitment, patience, perseverance, and a really good sense of humor.

In 2005, ACM launched the Computer Science Teachers Association (CSTA) with the goal of systemically addressing all of these issues and beginning to rebuild the critical bridge between K-12 and post-secondary computer science and informatics educators. Thanks to the work of the K-12 Task Force, CSTA hit the ground running with a national survey of high school computer science educators, the *ACM Model Curriculum for K-12 Computer Science* (<http://csta.acm.org/Curriculum/sub/ACMK12CSModel.html>), and the Java Engagement for Computer Science partnership workshops (<http://csta.acm.org/ProfessionalDevelopment/sub/TeacherWorkshops.html>).

The task of building relationships between K-12 and universities and colleges, however, was a bit more

problematic. While a small handful of CS and IT departments had launched very successful outreach programs, many had no idea what the issues were in K-12, how to reach or communicate with the teachers, and how to build relationships that would be perceived as mutually beneficial and bring about sustained improvements.

With the support of ACM, as well as a Board of Directors and Advisory Council drawing from all levels of academic computing as well as from industry, CSTA began to transform itself into something of a bridging organization, translating the realities of K-12 to the post-secondary world and vice versa. While CSTA's mission remained clearly focused on K-12, we began to see the importance of helping post-secondary educators develop more effective outreach programs.

CSTA also began to focus more attention on addressing the broad scope of equity issues affecting K-12 computer science education. As part of its research work, CSTA began collecting data on the percentage of young women and minority students in high school computing classes. It also began developing resources (on its own and in partnership with other organizations) specifically targeted at these student populations (<http://csta.acm.org/Careers/sub/ClassroomCareersResources.html>).

As a result of this work, we now have a very good idea of what does and does not work when it comes to K-12 outreach, and we have found that successful outreach programs have the following things in common:

- The outreach team has taken the time to identify what local teachers need (often by actually talking to them) and focused their program on meeting those needs.
- The goal of the outreach is building long-term relationships. As you can imagine, teachers are less receptive when they know that you are only calling them because you now need something from them.
- Every communication from the outreach team clearly identifies the return on investment for the K-12 teachers. Recruiting more students for your program is not enough. Teachers want to know what you are doing for their programs and their students.
- Engagement with minority populations is significantly enhanced by a solid relationship with the target community. This is especially true for projects focusing on Hispanic students where whole-family involvement can significantly enhance the project's reach and impact.
- The outreach team includes K-12 teachers who provide valuable contextual information on the realities of teaching in today's schools.

- The impact of the outreach program (both short term and long term) is continually measured.
- There is a long-term commitment (once is not enough).

We can also tell you that if your department is not already doing active outreach in K-12, you need to start now. You do not, however, have to start from scratch. Most programs are local, so you can talk to other institutions who already have successful programs in place and are willing to share their expertise and also, possibly, their outreach resources.

You can also talk to organizations that have expertise, resources, or are building community around K-12 and outreach. Both CSTA (csta.acm.org) and the NCWIT K-12 Alliance (www.ncwit.org/alliance.k12.html), for example, are very active in this area and have wonderful resources for teachers, students, and parents.

The final issue that may actually be the most problematic is that institutions that want to do successful outreach to K-12 must dedicate resources (both fiscal and human) to the effort. Too often, the task of doing the K-12 outreach is handed off to junior (untenured) faculty with no time and no money, or to grad students who should be concentrating on doing what they need to do to complete their educations. In addition, faculty who do outreach tell us that, as far as their institutions are concerned, it doesn't really count in any of the ways that really mean something to faculty (such as tenure or release time).

The bottom line is that, as organizations and educators, we need to work together to build and strengthen this bridge between K-12 and post-secondary education if we are to have any hope of addressing the critical pipeline issues that affect us. This is important work. It needs to be done. And it should count.

Chris Stephenson is the Executive Director of the Computer Science Teachers Association. ■

**CRA-W
Anita Borg Early
Career Award**

Nomination Deadline

February 15, 2009

Details: <http://www.cra.org/Activities/craw/borg/index.php>

Outstanding Undergraduate Award Winners Announced

The Computing Research Association honors the recipients of its 2009 Outstanding Undergraduate Awards, sponsored this year by Microsoft Research, Mitsubishi Electric Research Labs (MERL) and Microsoft Research sponsor the awards in alternate years.

Winner, Female Award



Raluca Ada Popa is a senior at the **Massachusetts Institute of Technology**, majoring in Computer

Science and Mathematics.

At MIT, Raluca has been involved in three research projects that have resulted in three publications and two others in submission at top conferences. Her research includes: the auditing of computerized elections, cooperative caching techniques for huge databases spread across large numbers of servers, and computing useful statistics or functions about the movement of cars (e.g., automatic toll collection) without violating the privacy of drivers by revealing the position of any particular car.

After spending her freshman year at Cal Tech, Raluca transferred to MIT, maintaining a perfect GPA at both institutions. In the summer between, Raluca worked on a research project at the University of Illinois that resulted in a paper at SOSR. It is rare indeed for anyone to be on track to be an author on papers based on research in each undergraduate year. She also has served as an undergraduate tutor for the Office of Minority Education at MIT, and currently participates in the Women's Outreach Program for the ECE Honor Society.

Runner Up, Female Award



Erin Carson is a senior at the **University of Virginia**, majoring in Computer Science with minors in

Applied Mathematics and in Materials Science and Engineering.

At UVA, Erin has been involved in several research projects. Most notable are two involving modeling and simulation. The first concerns simulating the dissolution of alloys, which resulted in a conference paper. The second considers the uncertainties in epidemiological models and their effects on the results. Her work has brought into serious question whether any disease spread model can ever be deemed reliable.

In addition to being a fine student with a near-perfect GPA in her major and minors, Erin has worked as a TA for four semesters, gives her time freely to multiple charitable activities in the

Charlottesville community, and holds an executive position in her professional engineering sorority.

Winner, Male Award



Tal Rusak is a senior at **Cornell University**, majoring in Computer Science.

Tal has been

involved in research since freshman year, resulting in seven first-authored publications and presentations. Current research involves discovering the structure of low-power wireless networks by applying analytical methods to novel computing systems. Results show effective ways to simulate such networks and have suggested novel statistical properties of wireless links. Tal's work won the Best Paper Award at the international ACM MSWiM'08 conference and First Place in the ACM Student Research Competitions at MobiCom'08 and SIGCSE'08. His paper has been invited for journal publication and several additional papers are currently in preparation. Concurrently, Tal is working on a research and development project to design and implement a user-friendly web-based course planning and audit system, with a paper submitted for publication. Previously, Tal studied the efficient simulation of electronic sensor devices, including the CMOS sensor and a nanotube-embedded chemicapacitive sensor; results were published at the IEEE ISDRS'07 conference.

Tal maintains a perfect GPA, has served as a teaching assistant and peer tutor for undergraduate students, and serves on the Student Library Advisory Council. He volunteers at an after-school program for elementary school students. Tal has a deep interest in history, and has published a sole-authored paper in an international journal in this field.

Runner Up, Male Award



Arthur Mahoney is a senior at **Utah State University**, with a double major in Computer Science and

Computational Mathematics.

Arthur Mahoney has pursued research in five areas that have resulted in three publications, two of which have Arthur listed as first author. His research includes: parallel path planning in large graphs, altruistic negotiation systems, developing novel parallel algorithms for extremely fast robotic motion planning, massively parallel search strategies for discovering novel

cancer therapies, and parallel tools for hydrologic prediction and flood forecasting that scale to massive data sets.

In addition to maintaining a perfect GPA, Arthur mentors other students in the Undergraduate Research Program, tutors for the Mathematics and Statistics department, and is the administrator of the Computer Science department's computer cluster, having designed and put it together himself.

Finalists, Female Award

Dorna Haghghi, McGill University; **Sarah Loos**, Indiana University; **Rachel Miller**, University of Virginia; **Julia Schwarz**, University of Washington; and **Melanie Tupper**, Dalhousie University.

Finalists, Male Award

Taylor Berg-Kirkpatrick, University of California, Berkeley; **Michael DeLisi**, University of Utah; **Peiran Gao**, University of California, Berkeley; **Kevin Karsch**, University of Missouri;

Michael Nowlan, Georgetown University; **Nathaniel Roman**, Washington University in St. Louis; and **Lawson Wong**, Stanford University.

Honorable Mention, Female Award

Jessie Berlin, Tufts University; **Jenna Cameron**, University of Western Ontario; **Melanie Clements**, New York University; **Natalie Freed**, Arizona State University; **Sahar Hasan**, Columbia University; **Heather Justice**, Harvey Mudd College; **Jessica Leung**, University of Washington; **Samantha Leung**, University of British Columbia; **Gabriela Marcu**, University of California, Irvine; **Olena Melnychenko**, Pennsylvania State University; **Anna Ostberg**, University of California, San Diego; **Dhivya Padmanabhan**, Texas A&M University; **Elaine Shaver**, Harvey Mudd College; **Sweta Vajjhala**, Georgia Institute of Technology; and **Lucy Vasserman**, Pomona College.

Honorable Mention, Male Award

Daniel Amirault, University of Massachusetts Amherst; **Tycho Andersen**, Iowa State University; **Jeremiah Blocki**, Carnegie Mellon University; **Shaon Barman**, University of Texas at Austin; **Brian Burg**, Purdue University; **Hao Yu (Alex) Cheng**, University of Toronto; **Robert Clark**, University of Illinois at Urbana-Champaign; **Andre Cohen**, Rutgers University; **Jason Croft**, Boston College; **John Doucette**, Dalhousie University; **Paul Dumoulin**, Pace University;

William Ella, University of Mary Washington; **Robert Gevers**, Purdue University; **Christopher Head**, University of British Columbia; **Marius Iordan**, Williams College; **David Kawrykow**, McGill University; **Andy Lindeman**, Mississippi State University; **George Lucchese**, Texas A&M University; **Edward Lui**, University of British Columbia; **William Marczak**, University of Pennsylvania; **Benjamin Maurer**, Carnegie Mellon University; **Teodor Moldovan**, Brown University; **Kupa Mutungu**, Princeton University; **Ian Obermiller**, Marquette University; **Denis Pankratov**, University of Toronto; **Mark Przepiora**, University of Calgary; **Adam Raczkowski**, Tufts University; **Mark Reitblatt**, University of Texas at Austin; **Michael Ryan**, University of California, Los Angeles; **Cory Simon**, Iowa State University; **Devin Smith**, Harvey Mudd College; **Ian Vo**, Columbia University; **Ziyu Wang**, University of Waterloo; **Brian Wongchaowart**, University of Pittsburgh; and **Luke Zarko**, University of Pennsylvania.

*This year's selection committee included **Richard Waters** (Mitsubishi Electric Research Labs), Chair; **Geoff Keuning** (Harvey Mudd College); **Clement Lam** (Concordia University); **David Novick** (University of Texas, El Paso); and **Lynn Stein** (Olin College). ■*

DREU: Distributed Research Experiences for Undergraduates

(Known as the DMP, Distributed Mentor Project, from 1994-2008)

Application Deadline for Summer 2009

February 15, 2009

Details: <http://www.cra.org/Activities/craw/dmp/>

Message from the CISE AD Cyber-Physical Systems

By Jeannette M. Wing, Assistant Director of NSF for CISE

Autonomous cars. Robots at work, at play, at home. Intelligent, energy-efficient, earthquake-proof buildings. Physical infrastructure monitored and controlled by sensor nets. Embedded medical devices. Unobtrusive assistive technology. What is common to these systems? They have a computational core that interacts with the physical world. These *cyber-physical systems* are engineered systems that require tight conjoining of and coordination between the computational (discrete) and the physical (continuous). Cyber-physical systems are rapidly penetrating every aspect of our lives, with potential impact on sectors critical to U.S. security and competitiveness, including aerospace, automotive, chemical production, civil infrastructure, energy, finance, health-care, manufacturing, materials, and transportation.

The trend in cyber-physical systems is to rely less and less on human intervention and decision-making and more and more on the intelligence as embodied in the computational core. In some cases, such as an automated brake system in a smart car, this computational core may be able to detect and respond faster than a human; in some cases, such as robotic surgery, this computational core can be more precise than a human and not prone to fatigue; and in some cases, such as a minefield, an icefield, or a volcano, we would rather risk the expense of a machine over the life of a human. In all cases, it will likely be the software that provides much of the intelligence of the computational core.

Our daily lives will depend more and more on these systems. Our lives,

our money, our welfare. A challenge for our community, then, is: "How can we design cyber-physical systems people can bet their lives on?"

One technical challenge is how to deal with both the discrete and continuous worlds at the same time. Cyber-physical systems inherently operate under the presence of uncertainty, including disruptive events, in the physical world, where uncertainty may be due to Mother Nature or The Human (angelic or demonic). Intelligent cyber-physical systems ideally will not only be aware of and adaptable to a dynamic, unpredictable environment, but also do no harm. Perception, control, and coordination are essential to cyber-physical systems.

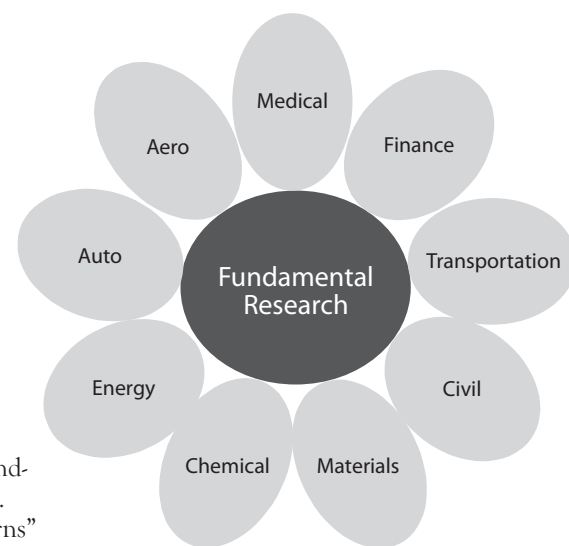
In computing, we rely on rich abstractions to compose hierarchically designed systems where some abstractions even lend themselves to advanced verification techniques, especially as used to find subtle design bugs; however, we use these abstractions primarily to capture functional behavior and treat multiple competing influences in cyber-physical systems as "non-functional" requirements. Typically, we make overly simplifying assumptions about the environment and avoid explicit representation of time, space, energy, temperature, and other aspects of the physical world. Compositional reasoning, the ability to infer system behavior from component behavior, may be impossible for some of these requirements, especially when taken all together.

In engineering, we cautiously over-design our systems with wide margins to achieve physical fault separation and isolation; however, we tend to

ignore intrinsic aspects of computing and communication, such as scheduling, resource management, network delays, and computational failures, since they are often regarded as secondary implementation issues. This "separation of concerns" principle, while crucial for tractability, often imposes an early architectural separation between the cyber and physical features of the system, thereby severely limiting our ability to assess the impact and tradeoffs among a full range of design alternatives.

Bridging the two worlds of the cyber and physical will be smart sensors, transponders, and actuators, likely in new and diverse form factors. Some applications will require new camera technologies to perceive and track moving objects, especially people.

The Cyber Physical Systems (CPS) Program (http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503286&org=CISE), spearheaded by NSF's Directorates for Computer and Information Science and Engineering (CISE) and Engineering (ENG), is providing an opportunity for the community to realize the vision of tomorrow's cyber-physical systems. The CPS Program seeks new scientific foundations and technologies to address the challenges of cyber-physical systems and to enable rapid deployment of applications across different sectors. We encourage different research communities to work together, bringing their different perspectives and expertise to the table.



The goal is to usher in a new generation of cyber-physical systems whose functional performance far exceeds those of today in terms of adaptability, autonomy, efficiency, functionality, perception, reliability, safety, and usability.

To expedite progress, we hope to cultivate the "flower model" (see graphic). Advances in fundamental research (center of flower) are inspired by problems from one or more domain sectors (petals of flower). Given a problem specific to one domain, a researcher might generalize the problem or generalize the solution (where both kinds of generalizations contribute to fundamental knowledge, the center), and then instantiate the solution to solve a similar problem in a different domain. Progress in one domain immediately benefits all other domains, avoiding duplication of effort or building point solutions that are not reusable. We hope that the virtual organization described in the CPS Program solicitation can facilitate the needed exchange, both among different research communities and between industry and academia, to effect this flower model. ■

Musings from the Chair Where There Is No Vision, the People Perish

By Dan Reed, CRA Board Chair



The hearing room for the U.S. House of Representatives Committee on Science and Technology is as formal and imposing as the name suggests.

Each time I have testified there on aspects of the Networking and Information Technology Research and Development (NITRD) program, I have paused to reflect on the two quotations inscribed there. The quotations command attention because they are inscribed on the paneled wall behind the seats of the committee members—and all witnesses face the committee and that wall.

The first inscription, a line from the poet Alfred Tennyson, captures the rapturous joy that is birthed by scientific discovery:

*For I dipped into the future, far as human eye could see
Saw the vision of the world, and all the wonder that would be*

After all, this is why we were first attracted to research in general and computing in particular. It satisfies some of our oldest and deepest yearnings: to understand what and how and why.

The second inscription, from Proverbs, is a sobering warning to those who do not feel the siren call of intellectual curiosity, marshaled by strategy and tactics:

Where there is no vision, the people perish.

In simple yet haunting lines, these two Janus-like invocations capture the rewards that accrue to those who both articulate and—equally critically—act on visions, and they warn of the dire consequences for those who do not. I pause and ponder both each time I enter the House hearing room.

Enabling Innovation

I have often reflected on the critical ingredient to discovery and innovation. Is it knowledge? Without doubt, for each discovery builds on the vast and interconnected web of previous discoveries. Is it talent? Certainly, as anyone who has ever taught a class knows and understands. Is it persistence? Absolutely, for Edison was right; discovery is 99 percent perspiration.

Above all, I believe the most precious and rare element is vision. It is the ability to imagine what could be, to see what is invisible to most and obvious to only a few. It is that ineffable notion of taste, where one must choose compelling problems from among a plethora of seemingly equally inviting ones. More generally, vision is navigating the shoals between the treacherous rocks of the truly impossible and the placid waters of the purely pedestrian.

Computing at the Crossroads

Over the last sixty years, computing has profoundly affected commerce, science and society. Despite this, or perhaps because of it, we find ourselves at an intellectual and emotional crossroads, facing a metaphorical midlife crisis. We are debating the nature of computing education—what are the essential elements of computing writ large and the compelling intra- and interdisciplinary research visions for the future?

I believe we must dream big and articulate visions for the future that inspire and attract. Much as physics asks deep and powerful questions about the origins of the universe and the principles via which it operates, and biology asks equally deep questions about the nature of life and

Musings from the Chair
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Filling Top S&T Posts Key Task For New Administration

By Peter Harsha

The change in presidential administrations in the New Year means more than just a changing of staff within the offices of the White House. The leadership of nearly every federal agency is politically appointed, and a change of administration likely means a change of leadership in every one of those positions and programs—including dozens of leadership positions at key science agencies relevant to computing and in policymaking positions throughout the executive branch.

The impact of those appointments on federal science policy will be significant. Agency directors, for example, often enjoy considerable leeway in implementing the programs under their jurisdiction and the decisions they make can resonate throughout the scientific community in dramatic ways.

At the Defense Advanced Research Projects Agency (DARPA), for example, a change in leadership with the change in administrations in 2001 hastened a shift at the agency away from university-led, fundamental research efforts and towards shorter-term, more development-oriented research that reshaped much of the landscape for federally supported computing research in very negative ways, according to many within the computing community. The shift in policy helped make the agency into an unattractive place for university researchers to seek funding, which in turn increased the burden on the other federal agency

primarily responsible for funding computing research: the National Science Foundation. As a result, when coupled with an increase in the number of computing faculty, the DARPA policy shift pushed NSF into a difficult period where an increasing number of faculty were submitting an increasing number of proposals to the agency, while the agency's budget remained relatively flat, causing proposal success rates to plummet. As we approach the end of the Bush Administration, the DARPA/NSF share of support for university-led computing research, which had been about 50:50 at the start of the period, is now significantly lopsided, with NSF now supporting 86 percent of computing research at U.S. universities.

With the stakes this high, it makes sense that the computing community, along with much of the general science community, should pay close attention to some key positions to be filled and the transition process itself. As this article goes to press, President-Elect Barack Obama has announced a number of the members of his transition staff, including many of those who will be handling the science and technology-oriented appointments for the new administration. (See http://change.gov/learn/obama_biden_transition_agency_review_teams for a complete list.)

However, no nominees for those key science positions have yet been named.

It is worth taking a look at some of the key science and technology positions the Obama Administration will have to fill upon taking office. The individuals he appoints to these positions will play a significant role in shaping federal science policy—including federal IT research policy—over the next four years.

Perhaps the primary science appointment for a new Obama Administration will be the **President's Science Advisor and Director of the White House Office of Science and Technology Policy (OSTP)**. The Director of OSTP has traditionally served as the President's Science Advisor, though the visibility of the position has changed with administrations. Under President Clinton, for example, the President's Science Advisor enjoyed a cabinet-level rank, putting the OSTP Director on equal footing with the Director of the Office of Management and Budget and the U.S. Trade Representative. Under President Bush, however, the Science Advisor was not a cabinet-level appointment, a move that many in the science community saw as emblematic of a de-emphasis of science within his administration. In October, CRA joined with 180 other science organizations in sending a letter to both presidential campaigns urging that both candidates commit to naming a new Science Advisor by inauguration day January 20, 2009, and re-elevating the Science Advisor to cabinet rank.

The role of the Science Advisor is to advise the President and others in the executive branch on the impacts of science and technology on domestic and international affairs and lead the effort to craft sound science and technology policies and budgets. An elevated science advisor would likely have more clout with which to influence the science budget process. An empowered science advisor would also likely have more success in guiding large, interagency efforts, like President-Elect Obama's proposal to spend \$15 billion per year in order to help the nation achieve energy independence.

Also within OSTP are two other key positions to be filled, the **Associate Director and Deputy Director for Technology**, and the **Associate Director and Deputy Director for Science**. Both assist the science advisor in crafting federal science policy and lead a number of executive-branch advisory committees, such as the President's Council of Advisors for Science and Technology (PCAST) and the President's Information Technology Advisory Committee (PITAC). Though PITAC has been incorporated into PCAST under the Bush Administration, it may once again become a free-standing committee.

Within the Department of Defense there are a number of key positions relating to science and technology.

The first is the **Secretary of Defense**,

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Sexism—Toxic to Women's Persistence in CSE Doctoral Programs

By J. McGrath Cohoon and Jie Chao

Preventing sexism in CSE doctoral programs can increase the retention of women. With funding from the National Center for Women & IT (NCWIT), CRA has been studying women in the CRA-W Graduate Cohort program. This program welcomes women graduate students into the computing community and provides them with role models and a broad range of strategies for success. Analyses have produced some interesting findings about women's retention in CSE doctoral programs.

The data indicate that observing or experiencing sexism plays a key role in doctoral women's departure. When asked to describe any sexism (according to their own definitions) that they observed or experienced in their doctoral programs, the Cohort women identified incidents ranging from differential and demeaning to crude and offensive behaviors by some faculty and other students.

A few women faced "male graduate students who openly express their opinions that the women in the program are more likely to be incompetent than the men." Other women were subjected to behavior that would qualify as harassment. For example, one woman "switched labs because male students frequently

and explicitly discussed women and their sex lives in very unsavory ways." Even faculty members occasionally contributed to making the environment inhospitable for women. For example, "I had a male faculty member state that attendance is so important that missing class to tend to a sick child is unacceptable. In fact, he stated that women with children should "choose" between a family and an education." His male students apparently were not expected to make a similar choice.

Among Cohort women working toward a doctoral degree in 2008, 12% witnessed or had been subjected to sexism by the spring of their first year. Close to one-quarter of the more advanced graduate women observed or had experienced sexism. These responses suggest that women in CSE doctoral programs perceive less sexism than reported by women in many other settings. Nevertheless, our analyses showed that even this level of sexism is a serious issue in CSE doctoral programs.

Although not a common experience in CSE doctoral programs, sexism leads some women to think of leaving (TOL) their doctoral programs. By the second year of their program, 60% of the Cohort women in our

sample thought of leaving. Most often, these thoughts were motivated by low confidence in their own abilities (49% of those who TOL cited this reason), or to take a job (49% of those who TOL). Only 7% of the women who thought of leaving cited sexism observed or experienced as their reason. Nevertheless, sexism has a strong impact on actual departure, unlike other motivations for thinking of leaving.

Many of those who consider leaving persist nonetheless. Comparing women who TOL and persisted with those who TOL and actually left shows that these two groups had very different motivations regarding only one factor—sexism observed or experienced. Thirty-six percent of Cohort women who TOL and left selected sexism observed or experienced as a reason for their TOL, while only 3% of those who TOL but persisted chose this reason. Calculating the odds ratio of actual departure produces only one statistically significant factor ($p < .001$). The odds of actual departure are 10 times greater for women who think of leaving because of sexism than they are for any other reason women identified.

In conclusion, sexism seems far from rampant in CSE, but when

women perceive it, sexism is likely to be toxic to their persistence. These findings suggest that acting to minimize women's experience of sexism in their doctoral program could have a measurable positive effect on women's retention.

J. McGrath Cohoon is Assistant Professor of Science, Technology, & Society in the School of Engineering & Applied Science at the University of Virginia. **Jie Chao** is a doctoral student, Curry School of Education, Instructional Technology, University of Virginia. ■

Note:

This material is based upon work supported by the National Center for Women and Information Technology, the Computing Research Association, CRA-W, and the National Science Foundation under grant number UVA-0413538. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation or other supporting organizations. The authors also acknowledge and appreciate the assistance of University of Virginia doctoral student Zhen Wu for her valuable help with data collection and analyses.

Exploring the Frontier from Page 1

standard professional challenges (e.g., identifying the important problems, evaluating the work and mentoring newcomers, securing resources). How can we reduce these barriers for collaborators?

2. *The World Needs Us.* We face a huge range of societal problems, and our expertise as computer and information scientists and engineers can help solve many of these. Traditionally, though, applied research has not been as highly valued as basic research; “it’s ‘just’ an application” is a common dismissal of certain types of research. How do we properly assess use-driven research, and distinguish between “mere” applications and serious (but applied) contributions? How do we work with stakeholders who may not be researchers themselves? Are there ways to help people feel comfortable when they move outside familiar styles of research to address problems that may not have the same level of esteem within the academic research community?

3. *Breaking the Cycle.* Anyone who has served on a program committee in any field has bemoaned “creeping incrementalism.” How do we break the cycle of deadline-driven research that leads to least publishable

units, resulting in quantitative rather than qualitative advances? How can we encourage a bolder approach to research projects, one that may involve more risk-taking, but may also produce more visionary work with greater impact? How can we encourage and support basic, long-term research, often necessary to pursue “deep” science questions of our field? What kinds of specific changes must we make to the academic reward structure and to the government funding review process to enable people to fail locally and periodically, without failing globally and permanently? To ensure scholarship in our field, what is the right mix, culture and approach to journal and conference publications and other venues?

4. *Serving the Community.* If our field is to stay vibrant, we need people to step up and serve the community, in roles ranging from mentors for junior faculty members to program managers at funding agencies and national leaders in the research community. Community leaders represent all of us—to people in other fields, to the public, to the media and to Congress. How can we develop a culture in which professional service is valued, so that the community has

a strong voice and is able to obtain the resources needed for the health and growth of our field? How can we best mentor the next generation of computer science leaders?

Outcomes

The workshop did not produce definitive answers to all of these questions, but it did generate a host of good ideas. In every case, the debate was lively, thoughtful and thought provoking. We agreed to produce a set of “good practice” white papers on selected topics and to summarize the discussion for the community. Look for these on the CRA website (www.cra.org) in the coming months.

More generally, we invite all of you—the computing research community—to offer your perspectives and ideas on how we maximize the spirit of innovation and vision, both intellectually and practically, that has made our field a magnet for talented individuals and that has transformed commerce, science and society over the past sixty years. Please post your comments to either the CCC blog (www.cccb.org) or by emailing any of us.

The Future is Bright

Computing faces an embarrassment of riches in the form of research opportunities and possibilities. The “endless frontier” of research within our own discipline is expanding exponentially. Moreover, computing is the quintessential intellectual amplifier for other disciplines, allowing us to manage and extract insights from prodigious amounts of data, build and bring to life sophisticated models of natural and human-synthesized processes, and enable communication and collaboration across time and space.

The future is bright! Let’s seize the opportunities and invent the future—for ourselves as computing researchers and for our colleagues and collaborators in other disciplines.

Ed Lazowska holds the Bill & Melinda Gates Chair in the Department of Computer Science & Engineering at the University of Washington, and is Chair of CCC. Martha Pollack is Dean and Professor, School of Information, University of Michigan, and a CRA board member. Dan Reed, CRA’s Board Chair, is Microsoft’s Scalable and Multicore Computing Strategist. Jeannette Wing is Assistant Director of NSF for CISE. ■

CISE Bytes

This is the second in a series of columns by Jeannette Wing, Assistant Director of NSF for CISE, covering items of interest from the directorate.

Personnel Updates

I am pleased to announce the following newcomers to CISE’s scientific staff. Alhussein Abouzeid, RPI, joins CNS as a program director; Sajal Das, University of Texas at Arlington, CNS; Qiang Ji, RPI, IIS; Dmitri Maslov, University of Waterloo, CCF; Jie Yang, Carnegie Mellon, IIS. Rajinder Khosla, at NSF since 1996 in the Engineering Directorate, joins CISE as the CNS Deputy Division Director. Mary Lou Maher, who joined IIS in 2006 from the University of Sydney, is now the IIS Deputy Division Director.

Huge thanks go to two rotators who left CISE in December: Timothy Pinkston, who served as the Expeditions PD last year while continuing to help with CCF programs, returns to USC; and Jie Wu, CNS, returns to Florida Atlantic University. Congratulations are in order also to Timothy and Jie for being elected 2009 IEEE Fellows.

CISE Advisory Committee

On Friday, October 17, CISE held an unusual Advisory Committee meeting in that we primarily focused on one theme: sustainability and energy. First, Dr. Tim Killeen, the new AD for the Geosciences Directorate, gave a presentation on the challenges and opportunities for the CISE community in climate modeling and prediction. Then, Dr. Carla Gomes from Cornell, as lead PI, gave a presentation of the goals for the newly CISE-awarded Expedition on “Computational Sustainability.” Finally, Dr. Doug Fisher, IIS PD, gave a presentation on GreenIT: Computing, Communications, and the Environment. He led a discussion on the role of CISE and the CISE community in meeting the broader societal grand challenge on energy/environment/climate change/ sustainability.

To round out the agenda, Melissa O’Neil, CISE AC member, gave a presentation and led a discussion on broadening participation in computing. I also gave updates on CISE since the May 2008 AC meeting.

Changes in Washington

Starting Wednesday, November 5, NSF was in “transition team” mode, with our preparing and gathering documents at all levels for the incoming Obama Administration. We provided workshop reports and academy studies—to which many of you directly contributed—in support of NSF’s four goals: Discovery, Learning, Research Infrastructure, and Stewardship. We hope to make clear that the CISE research community is making essential contributions to the Nation’s health, security and prosperity. CISE program directors will be asking you for grant “highlights” in the next few months, so please provide us with information on your greatest accomplishments—we’ll be sharing the most compelling examples with the new Administration and Congress in early 2009. We want to make a great and lasting impression!

The transition team moved swiftly, as the review of NSF started Monday, November 17. Jim Kohlenberger, executive director of the Voice on the Net Coalition, and Henry Rivera, a lawyer with telecommunications expertise at the firm Wiley Rein, led the review. Rounding out the team were Henry Kelly and Michelle McMurry. I have been on call for any questions about any CISE program and any NSF program in which CISE participates, such as Cyber-Enabled Discovery and Innovation. Their report on NSF feeds into a bigger review of all federal agencies, departments, and executive offices. ■

Musings from the Chair from Page 4

its processes, computing can and must ask profound questions about the nature of computability, information, communication, intelligence, perception, and their manifestations in technology. Simply put, we need compelling visions for the future and the wonders that would be.

We face perilous economic times, and our research and education institutions are under enormous financial strain. I cannot imagine a more important time to articulate a shared vision for the future of computing and mount the initiatives needed to make those wonders a 21st century reality. The consequences of the alternative are unimaginable.

Dan Reed, CRA’s Board Chair, is Microsoft’s Scalable and Multicore Computing Strategist. Contact him at Daniel.Reed@microsoft.com or his blog at www.hpcdan.org ■

CRA Service Awards 2009

Distinguished Service Award

A. Nico Habermann Award

Nominations Due:
January 30, 2009

Details: <http://www.cra.org>

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who, while not specifically a science appointee, has the authority for naming the key science and technology appointments who will serve beneath him. President-Elect Obama has already announced that current Secretary of Defense Robert Gates will continue in that role through at least the first year of Obama's term. Gates has proven to be a great supporter of recommitting the Department of Defense to supporting fundamental research efforts at U.S. universities and in the service labs, so his retention bodes well for the continuation of ambitious budget requests already set in motion for defense basic science. In addition, the Obama Administration will consider new nominees for the **Director of Defense Research and Engineering (DDR&E)** and the **Director of DARPA**. The DDR&E has responsibility for all of defense science and technology, including each of the service labs and defense-wide research in the Office of Secretary of Defense and DARPA. The Director of DARPA obviously oversees the \$3 billion a year that agency spends on "bridging the gap" between truly fundamental research and deployable technologies designed to aid the war-fighter and preserve America's technological advantage.

The Obama Administration will also have to consider new leadership for a number of other key agencies for the computing community: **Director of NSF**, **Director of the Department of Energy's Office of Science (DOE Sci)**, **Director of the National Institutes of Health (NIH)**, and **Director of the National Institute of Standards and Technology (NIST)**. While the Director of NSF is

technically a political appointment, traditionally there has been reluctance in both the executive branch and the Senate (who would have to confirm the nominee) to treat it that way. Instead, the position has a six-year term, which is designed to overlap Presidential terms. It is therefore not mandatory that the Obama Administration seek a replacement for current NSF Director Arden Bement right away, but it is likely that members of the transition team are thinking about who might succeed Bement when the time comes. However, it is not unusual for the other science agency positions (and their deputies) to change with the Administration.

Finally, a new position President-Elect Obama has committed to creating in his Administration is that of **Chief Technology Officer (CTO)**. The goal of this position, Obama has said, is to "ensure that our government and all its agencies have the right infrastructure, policies and services for the 21st century." In addition, the CTO will "ensure the safety of our networks and will lead an interagency effort, working with chief technology and chief information officers of each of the federal agencies, to ensure that they use best-in-class technologies and share best practices." The question of whether that description suggests a CTO that is more engaged in policy development or one more engaged as a liaison across federal agencies has animated the technology policy community since the election. There are certainly a number of technology policy issues a CTO could conceivably tackle, including questions about the openness of the Internet, broadband policies, e-government initiatives,

overseeing the health of the IT research ecosystem, modernizing health care IT, federal IT privacy policies, and many more. But it is also not clear how the new position would co-exist with the existing jurisdictions of both the OSTP technology policy apparatus and the CTO and CIO positions at federal agencies. If the role of the CTO is to become an "IT Czar," in much the same way there have been "Drug Czars" and "Cybersecurity Czars," then

many in the community fear that the outcome will be just as unsuccessful as those previous efforts. We at CRA will continue to track the evolution of this position as well as the speculation surrounding (and nominations for) all the other positions as well.

For all the latest on the nominees, and all other policy issues relevant to computing research, make sure you check the Computing Research Policy Blog at <http://cra.org/blog>. ■

NSF-Sponsored Academic Workshop for Underrepresented Assistant Professors, Associate Professors and Senior Doctoral Students

Saturday, April 4, 2009 – Sunday, April 5, 2009
Portland Marriott Downtown Waterfront in Portland, Oregon
In conjunction with the Richard Tapia Celebration of Diversity in Computing Conference

<http://apply2.cse.tamu.edu/AcademicCareerWorkshop/>

Deadline for Participant Applications—Friday, February 6, 2009

The Coalition to Diversify Computing (CDC), a joint organization of the Association of Computing Machinery (ACM), the Computing Research Association (CRA), and the IEEE Computer Society (IEEE-CS), is organizing the second annual Academic Workshop for Underrepresented Participants funded by an NSF Broadening Participation in Computing grant. The BPC Demonstration grant provides funding for participant travel, lodging, and meeting logistics.

The goal of the workshop is to mentor underrepresented **assistant- and associate-level faculty** and **senior doctoral students** about the academic career ladder. It is well known that mentoring activities are critical for successful promotions in the professoriate. Such activities are especially needed for underrepresented ethnic faculty in the field of computing, where the number at a given institution is usually very small. The workshop will include panels of diverse senior faculty talking about the tenure and promotion process, launching a research program, professionalism, and a detailed session on proposal writing. The workshop organizers include Valerie Taylor (Texas A&M University), Bryant York (Portland State University), Illya Hicks (Rice University), and Domingo Rodriguez (University of Puerto Rico in Mayaguez).

We invite underrepresented assistant- and associate-level faculty and senior doctoral students to submit an on-line application at the following URL: <http://apply2.cse.tamu.edu/AcademicCareerWorkshop/> by **Friday, February 6, 2009**. Participants will be notified by Monday, February 20, 2009. Funding will be provided for all participants. Questions about the program can be sent to Valerie Taylor (taylor@cse.tamu.edu). ■

CRA-W Mailing Lists

The Committee on the Status of Women in Computing Research (*CRA-W*) has created several mailing lists to keep women in CS and CE connected.

- PhdjobhuntHers<<http://www.cra.org/Activities/craw/maillinglist/PhdjobhuntHers/>> is a moderated mailing list for women who are seeking or starting Ph.D. level jobs in computer science, computer engineering, or information technology in academia, industry, or government laboratories. The goal of this mailing list is to enable women undergoing this process to talk to one another.
- JrProfessHers<<http://www.cra.org/Activities/craw/maillinglist/JrProfessHers/>> (Pretenures) is a moderated mailing list for women faculty in computer science, computer engineering and information technology who do not yet have tenure.
- ProfessHers<<http://www.cra.org/Activities/craw/maillinglist/ProfessHers/>> is a moderated mailing list for women faculty members in computer science, computer engineering, and information technology to informally discuss issues related to their jobs and being successful in their careers.
- Sisters-Mentoring (previously known as sisters-academia) is a moderated mailing list to provide mentoring to Ph.D. students and faculty members (particularly junior faculty) in computer science, computer engineering, or information technology to assist them in being more successful in academic research careers. Send an e-mail to Nancy Leveson at leveson@mit.edu<<mailto:leveson@mit.edu>> to join this group.
- ResearchHers<<http://www.cra.org/Activities/craw/maillinglist/ResearchHers/>> is a mailing list of about 300 women computer science, computer engineering or information technology researchers from industry, industrial and government research labs and academia. The list is international, with members from six continents. ■

Transitions and Awards

Distinguished Professor **Jim Kurose**, a CRA board member, has been appointed Interim Dean of the College of Natural Sciences at the University of Massachusetts, Amherst. NSM has about 250 faculty in nine departments that, in addition to Computer Science, include Astronomy, Biochemistry and Molecular Biology, Biology, Chemistry, Geosciences, Mathematics and Statistics, Physics, and Polymer Science.

Upsilon Pi Epsilon, Honor Society for the Computing and Information Disciplines, has announced that **Eugene Spafford**, Professor of Computer Science at Purdue University, will be presented with the 2009 Abacus Award on March 6, 2009 at its annual meeting. UPE's most prestigious award, it honors an individual who has gained international renown in the profession, and over a period of several years has provided extensive support and leadership for student-related activities in the computing and information disciplines. Congratulations Spaff!

Congratulations to **Elaine Weyuker**, AT&T Fellow and former CRA board member, who received the Anita Borg Technical Leadership Award at ABI's 8th Grace Hopper Celebration of Women in Computing in Keystone, Colorado, in October. The award is given to a woman who has inspired the women's technology community through outstanding technological and social contributions. ■

Professional Opportunities

CRN Advertising Policy

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

The Australian National University College of Engineering and Computer Science Research Fellow, Academic Level B

The Computer Sciences Laboratory seeks to appoint a Research Fellow (Level B) in Machine Learning or (Algorithmic) Information Theory or (Bayesian) Statistics or Artificial Intelligence or related area.

The appointee will work on an ARC project focussing on the mathematical, computational, and philosophical foundations of universal induction and intelligent agents, under the direction of Associate Professor Marcus Hutter.

Enquiries: marcus.hutter@anu.edu.au / hutter1.net/rsise/postdoc09.htm

Telephone: +61 2 6125 1605

Position / Application Information: jobs.anu.edu.au/PositionDetail.aspx?p=380

Closing Date for Applications: 16 January 2009.

Applicants should have an excellent mathematical background and research expertise in machine learning or (algorithmic) information theory or Bayesian statistics or related area.

The appointment will be for a period of two to three years.

The position is available immediately.

If you plan to attend NIPS Conference in December, please contact Marcus Hutter to arrange a meeting.

Broad Institute of MIT and Harvard Genome Sequencing Department- Computational Research & Development Computational Biologist/Group Leader

Apply your computing skills to DNA at MIT!

Have stellar computational skills, PhD or equivalent experience? Enjoy solving nearly impossible problems? We'll retrain you to work with cutting-edge DNA technology!

We find biomedical applications for new DNA sequencing instruments yielding billions of short DNA sequences like AATGTAATTTCAAATGTTAGCTC ATTTTGTAAATG.

We need you on our team to solve the hard mathematical and computational challenges using terabytes of these data. We invent algorithms, delve deeply in the data, code like crazy, help design laboratory experiments: we do whatever is needed to make the new technologies fulfill their promise to unlock the mysteries of genomics and biomedical research in critical areas like cancer, human genetics, infectious disease, antibiotic discovery, genome evolution, man's inhumanity to man, and the number 42.

We seek candidates from highly diverse backgrounds, industrial and academic.

Mathematical and computational experience and excellence required, including superb C++ skills in a Linux or Unix environment. Biology training helpful but not required as you can learn on the job. Outstanding oral and written communication skills, joy in teamwork. A group leader position is also open for a candidate with proven leadership experience in computational science.

The Broad Institute of MIT and Harvard has an intense, exciting environment, world-class laboratory and

computing facilities and hundreds of scientists tackling a wide range of critical problems in biology and medicine. Come join us!

Apply now at <http://web.mit.edu/jobs/>, search for mit-00004694, mit-00004693, mit-00003916 and mit-00004577, Software Engineer, Computer Scientist, Computational Biologist and Group Leader positions.

MIT is an equal opportunity/affirmative action employer. Applications from women, minorities, veterans, older workers, and individuals with disabilities are strongly encouraged.

The Broad Institute was founded to empower scientists of all kinds to work together on difficult, diverse, critical genomic and biomedical challenges. The Institute is a unique collaboration between the MIT and Harvard academic and medical communities, and it offers the resources and benefits provided to all MIT employees, including:

- Competitive pay
- Medical, dental, life insurance plans
- 401(k) plan with matching contributions
- Tuition assistance plan
- Four weeks of vacation after one year
- T-Pass subsidy program
- Athletic and fitness centers
- Child care services

Join a team that works the way you've always wanted to work.

Brown University Department of Computer Science Faculty Position

The Department of Computer Science at Brown University invites applications for a tenure-track or tenured faculty position starting July 1, 2009. Positions are open to all ranks with priority given to junior applicants. Preference will be given to those candidates who best meet the teaching and research needs of the department. We are especially interested in candidates in computer graphics and broadly related areas. Examples of such areas are computational photography, human-computer interaction, and the interface between graphics and vision. All applicants should have a demonstrated potential for excellence in research and teaching. Applicants holding senior faculty positions should have a strong record of externally funded research.

The department has 25 regular faculty as well as several adjunct, research, and visiting faculty. Department members frequently take advantage of Brown's unusually interdisciplinary culture via collaborations with other departments and centers, including Applied Mathematics, Art, Biology, Brain Science, Cognitive and Linguistic Studies, Computational Molecular Biology, Computer Vision, Economics, Engineering, Mathematics, Medicine, the Physical Sciences, and Psychology.

Junior applicants must have completed all requirements for the doctoral degree before the start date of their appointment. Initial appointments as assistant professor are for three years and are renewable.

Applications and letters of reference (at least three letters for junior applicants and names of five references for senior

applicants) should be submitted online through the Computer Science Department's website:

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

Full consideration will be given to applications received by January 5, 2009.

Brown University is located in Providence, RI, close to Narragansett Bay and an hour from Boston. Providence is among the Northeast's most livable cities and is home to diverse intellectual, artistic, and business communities.

Inquiries may be addressed to: faculty_search_2009@cs.brown.edu

Brown University is an equal opportunity/affirmative action employer and strongly encourages applications from women and minorities.

Bucknell University Department of Computer Science Assistant Professor Position

Applications are invited for a tenure track entry-level (three or fewer years of full-time teaching experience) assistant professor position in computer science beginning mid-August 2009. Candidates must have completed their Ph.D. requirements in computer science or a closely related field by August 15th, 2009. A strong commitment to excellence in teaching and scholarship is required. The successful candidate must be able to participate in the teaching of required core courses and be able to develop elective courses in the candidate's area of expertise that enhance the department's course offerings.

Bucknell is a highly selective private university emphasizing quality undergraduate education in engineering and in liberal arts and sciences. The B.S. programs in computer science are ABET and CAC accredited. The computing environment is Linux/Unix-based. More information about the department can be found at:

<http://www.bucknell.edu/ComputerScience/>

Applications will be considered as received and recruiting will continue until the position is filled. Candidates are asked to submit a cover letter, CV, graduate transcript, a statement of teaching philosophy and research interests, and the contact information for three references. Please submit your application to <http://jobs.bucknell.edu/> by searching for the "Computer Science Faculty Position".

Please direct any questions to Professor Xiannong Meng of the Computer Science Department at xmeng@bucknell.edu.

Bucknell University values a diverse college community and is committed to excellence through diversity in its faculty, staff and students. An Equal Opportunity/Affirmative Action Employer, Bucknell University especially welcomes applications from women and minority candidates.

California Institute of Technology Divisions of EAS and HSS Tenure-Track Position

The faculty of the Division of Engineering and Applied Science and the Division of the Humanities and Social Sciences of the California Institute of Technology invites applications for a tenure track position in computer science and economics. Examples of research areas

of interest include multi-agent systems, game theory, mechanism design, and distributed systems, although the quality of the work is more important than the area. We are seeking highly qualified candidates who are committed to a career in research and teaching.

The term of initial appointment is normally four years, if untenured, and is contingent upon completion of the Ph.D. Interested candidates should apply electronically at <http://jobs.hss.caltech.edu/> or submit a letter of application describing their current research, a vitae, three letters of recommendation, and a sample of work to:

Chair, CS/Ec Recruiting
Division of the Humanities & Social Sciences 228-77
California Institute of Technology
Pasadena, CA 91125
DEADLINE

Applications will be accepted until the positions are filled.

Caltech is an Equal Opportunity/Affirmative Action Employer. Women, minorities, veterans, and disabled persons are encouraged to apply.

Carnegie Mellon University Ray and Stephanie Lane Center for Computational Biology Tenure-Track Faculty Positions

We are recruiting tenure-track faculty in computational biology. These will include those interested in

- using experimental and computational methods to automate the characterization and modeling of complex biological systems at multiple scales, including automated experiment design and data acquisition
- and applying cutting-edge machine learning methods, especially active learning, to biological problems.

We especially seek candidates who are interested in integrating experimental and computational approaches to address complex questions related to improving cancer diagnosis and therapy.

Appointments will be made in the Lane Center and in one or more academic departments, as appropriate to the background and interests of the candidate.

To guarantee consideration, complete applications must be received by January 19, 2008.

<http://lane.compbio.cmu.edu>

Columbia University Department of Biomedical Informatics Postdoctoral Scientist

A Postdoctoral position in biomedical informatics is available at Dr. Chunhua Weng's group:

<http://www.dbmi.columbia.edu/~chw7007/open.html>

Columbia University Department of Computer Science Tenure-Track Position

The Department of Computer Science is seeking applicants for a tenure-track position at either the junior or senior level in computer graphics. Applicants should have a Ph.D. in a relevant field, and have demonstrated excellence in research and the potential for leadership in the field. Senior applicants should also have demonstrated excellence in teaching and continued strong leadership in research.

Our department of 34 tenure-track faculty and 1 lecturer attracts excellent Ph.D. students, virtually all of whom are fully supported by research grants. The department has active ties with major industry partners including Adobe, Autodesk, Disney, Dreamworks, Nvidia,

Professional Opportunities

Sony, Weta and also to the nearby research laboratories of AT&T, Google, IBM(T.J. Watson), NEC, Siemens, Telcordia Technologies and Verizon. 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 tree-lined campus is located in Morningside Heights on the Upper West Side.

Applicants should submit a CV, summaries of research and teaching interests, and the names and email addresses of at least three references to: academicjobs.columbia.edu/applicants/Central?quickFind=51000

The search will remain open until filled, but will close no sooner than February 28, 2009.

D. E. Shaw Research *Early Career Scientists and Engineers: Computational Biochemistry*

Extraordinarily gifted early career scientists and engineers sought to join a rapidly growing New York-based research group pursuing an ambitious, long-term project aimed at achieving major scientific advances in the field of biochemistry and fundamentally transforming the process of drug discovery. Successful candidates will work closely with a number of the world's leading biologists, chemists, and computer scientists, and will have the opportunity not only to participate in an exciting entrepreneurial venture with considerable economic potential, but to make groundbreaking contributions within the fields of biology, chemistry, and medicine.

D. E. Shaw Research is seeking scientists and engineers with zero to five years of experience who have degrees in chemistry, biology, physics, computer science, engineering, and mathematics from top-tier universities. Serious consideration will be given to candidates with extraordinary records of achievement in the natural sciences and/or scientific programming, exceptional quantitative abilities, and superb communication skills.

The group's current research activities are aimed at the discovery and development of innovative scientific techniques to direct unprecedented computational power toward the solution of key problems in the fields of biomolecular simulation and design. This research effort is being financed by the D. E. Shaw group, a global investment and technology development firm with more than US \$30 billion in aggregate investment capital. The project was initiated by the firm's founder, Dr. David E. Shaw, and operates under his direct scientific leadership.

We are prepared to offer above-market compensation to candidates of truly exceptional ability. Interested applicants should send a resume to:

CRA-sa@career.DEShawResearch.com
EOE

D. E. Shaw Research *Software Development: Supercomputer for Computational Biochemistry*

Exceptional software developers sought to write scientific code for a massively parallel special-purpose supercomputer. Successful hires will join an

interdisciplinary research group pursuing an ambitious, long-term project aimed at achieving major scientific advances in the fields of biochemistry and molecular biology.

Ideal candidates will have outstanding low-level programming ability and excellent verbal and written communication skills. Relevant areas of expertise might include parallel programming, multicore systems, compilers, assembly language programming, or architectural simulation, but specific knowledge of any of these areas is less critical than exceptional intellectual ability and a demonstrated track record of achievement. We will consider candidates at all levels of experience and are prepared to reward exceptionally well-qualified individuals with above-market compensation. Candidates will primarily be considered for opportunities in New York and Silicon Valley.

Please send your resume to: cra-asd@career.DEShawResearch.com.

EOE

DePaul University *College of Computing and Digital Media Tenure-track Position in Information Assurance*

The College of Computing and Digital Media at DePaul University invites applicants for a tenure-track position in one of the most comprehensive and fastest-growing information assurance programs in the country.

Candidates for the position will have a strong interest and experience in information assurance. While we encourage candidates with specializations

in all areas of information assurance to apply, we are particularly interested in those with specializations in audit, compliance, IT governance, risk management and information security management.

Job responsibilities include teaching, continued scholarship in the field and active involvement in the future development of the information assurance program at CDM. Rank and salary commensurate with qualifications and experience.

DePaul draws students of many backgrounds and cultures from a diverse urban setting, thus CDM 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. DePaul University offers equal employment opportunities to all persons in accordance with applicable federal, state and local EEO laws.

For priority consideration, application materials must be received by January 9, 2009. For application instructions, please visit:

<http://www.cdm.depaul.edu/aboutcdm/Pages/JobatCTL.aspx>

Duke University *Department of Computer Science Faculty Positions*

The Department of Computer Science at Duke University invites applications and nominations for faculty positions at all levels, to begin August 2009. We are interested in strong candidates in all active research areas of computer science, both core and interdisciplinary areas, including algorithms, artificial intelligence, computational biology, computational economics, computer architecture, computer vision, database systems, distributed systems, machine learning, networking, and security.

The department is committed to increasing the diversity of its faculty, and we strongly encourage applications from women and minority candidates.

A successful candidate must have a solid disciplinary foundation and demonstrate promise of outstanding scholarship in every respect, including research and teaching. Please refer to www.cs.duke.edu for information about the department.

Applications should be submitted online at www.cs.duke.edu/facsearch. A Ph.D. in computer science or related area is required. To guarantee full consideration, applications and letters of reference should be received by January 4, 2009.

Durham, Chapel Hill, and the Research Triangle of North Carolina are vibrant, diverse, and thriving communities, frequently ranked among the best places in the country to live and work. Duke and the many other universities in the area offer a wealth of education and employment opportunities for spouses and families.

Duke University is an affirmative action, equal opportunity employer.

Duke University *Computational and Systems Biology Tenure-Track Faculty Positions*

The Duke Institute for Genome Sciences & Policy (IGSP) and the Duke University Trinity College of Arts & Sciences invite applications for tenure-track faculty positions in the areas of computational, quantitative, or systems biology. We seek applicants with strong



School of Electrical Engineering and Computer Science

The School of Electrical Engineering and Computer Science at Oregon State University invites applications for tenure-track positions in Computer Science. The School of EECS strongly encourages teamwork and collaboration within the School, and with other departments and universities. We are particularly interested in candidates who can collaborate with our Graphics/Visualization, End-User Software Engineering and Machine Learning groups. The following areas are strong possibilities for collaboration with these groups: Human Computer Interaction; Theoretical Computer Science.

Applicants should have an earned doctorate in Computer Science/Computer Engineering by the appointment start date and demonstrate a strong commitment to high-quality undergraduate and graduate teaching and the development of a vibrant research program.

OSU is one of only two American universities to hold the Land Grant, Sea Grant, Sun Grant, and Space Grant designation and is the only Oregon institution recognized for its "very high research activity" (RU/VH) by the Carnegie Foundation for the Advancement of Teaching. With a faculty of 45, the School of EECS enrolls 1300 undergraduate and 300 MS/PhD students.

For more information, including instructions for application, visit <http://www.eecs.oregonstate.edu>. OSU is an AA/EOE.

Professional Opportunities

quantitative backgrounds (for example, in computer science, mathematics or statistics) and with experience in addressing challenging questions in the life sciences, including genome biology, systems biology, evolutionary genomics, functional genomics, or modeling across biological scales. Appointees will enjoy and contribute to existing strengths in the broad areas of computational and systems biology at Duke and will be affiliated with the IGSP Center for Systems Biology, a campus-wide intellectual center supported as a National Systems Biology Center by the NIH. A successful candidate will have a tenure-track academic appointment in a suitable department in Arts & Sciences, as well as an appointment as an Investigator in the IGSP, with the possibility for a joint appointment in other departments or schools as appropriate. While the current search is directed to faculty at the rank of Assistant Professor, exceptional candidates may be considered at more senior ranks.

Applicants should submit a curriculum vitae, a brief summary of current and proposed research, a statement of teaching interests and experience, and reprints of up to three publications via the web at:

www.academicjobsonline.org

Candidates should arrange for at least three letters of recommendation to be uploaded to the website. Applications received before 5 January 2009 will receive full consideration; applications after this date may be considered until positions are filled. Questions about the search may be addressed to bbooh@duke.edu; additional information may be found at: www.genome.duke.edu/centers/csb/facsearch

Duke University is an Equal Opportunity/Affirmative Action Employer; women and members of minority groups are strongly encouraged to apply

FX Palo Alto Laboratory, Inc. *Research Scientist*

FX Palo Alto Laboratory, Inc. (FXPAL) provides multimedia and collaboration technology research for Fuji Xerox Co., Ltd., a joint venture between Xerox Corporation of America and FujiFilm of Japan. We have an immediate opening for a Research Scientist with expertise in distributed systems and applications. We are developing distributed virtual collaboration and multimedia applications that run on everything from cell phones to laptop and desktop computers to very large clusters of multicore computers. Preferred applicants will have extensive experience with network protocols, scalable systems, distributed programming tools or multimedia technologies.

Candidates should be interested in working on practical applications in a collaborative setting and able to perform leading edge original research. A Research Scientist position requires a Ph.D. in Computer Science or related field, strong programming skills and an excellent publication record.

For more information about FXPAL, please visit our website at www.fxpal.com. To apply send resume to fxpalresumes@fxpal.com. Please reference job code CRN/4.

George Mason University Department of Computer Science *Assistant Professor Position, Computer Game Design*

Applications are invited for a tenure-track faculty position in Computer Game Design at the rank of Assistant Professor beginning Fall 2009. Applicants must

have a research focus on computer games technology—for example, in the areas of artificial intelligence, computer graphics, real-time animation, simulation and modeling, distributed systems, computer security, or software engineering as applied to computer games.

Minimum qualifications for the position include a Ph.D. in Computer Science or a related field, demonstrated potential for excellence and productivity in research, and a commitment to high quality teaching.

For more information on the department, visit our Web site:

<http://cs.gmu.edu/>

For full consideration please submit application and application materials on-line at <http://jobs.gmu.edu> (position number F9084z). To apply, you will need a statement of professional goals including your perspective on teaching and research, a complete C.V. with publications, and the names of three references. The review of applications will begin immediately and will continue until the positions are filled.

GMU is an equal opportunity/affirmative action employer. Women and minorities are strongly encouraged to apply.

Georgia Institute of Technology College of Computing, Computational Science & Engineering Division *Tenure Track Faculty Position*

The Computational Science and Engineering division within the College of Computing at the Georgia Institute of Technology invites applications for tenure-track faculty positions. Applications at all levels of service will be considered. Applicants must have an outstanding record of research, a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research with collaborators in other disciplines. We encourage applications from any areas of computational science and engineering. Applicants with expertise in high-performance computing modeling, simulation and numerical computing, bioinformatics and computational biology, and large-scale data analysis and visualization are especially encouraged to apply.

Applications will be considered until open positions are filled, however, to receive full consideration, applications should be submitted online through <https://recruiting.cc.gatech.edu/cse> by January 9, 2009.

The application material should include a full academic CV, teaching and research statements, a list of at least three references and up to three publications. Applicants are encouraged to clearly identify in their cover letter the area(s) that best describe their research interests.

Georgia Tech is an Affirmative Action/Equal Opportunity Employer. Applications from women and under-represented minorities are strongly encouraged.

Georgia Institute of Technology School of Computer Science, College of Computing *Tenure-Track Faculty Positions*

The School of Computer Science at the Georgia Institute of Technology invites applications for tenure-track faculty positions. Applications at all levels of service will be considered. Applicants must have an outstanding record of research, a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research.

The School of Computer Science is part of Georgia Tech's College of

Computing. With over 40 faculty members, research in the school covers a broad range of areas, including: computer architecture, databases, distributed and embedded systems, enterprise computing, high-performance computing, information security, networking, operating systems, programming languages and compilers, theory, and software engineering. Excellent applications in all areas of computer science represented by the School are invited.

The school incorporates a number of research centers including: the Center for Experimental Research in Computer Systems, the Georgia Tech Information Security Center, and the Algorithms and Randomness Center. These centers support a wide variety of focused and collaborative research projects spanning multiple academic units on campus. Applications from candidates with an interdisciplinary research focus and interest in potential joint appointments are welcome.

Reviews of submitted applications will begin December 15, 2008. Full consideration will be given to those who apply by January 15, 2009.

We strongly encourage application cover letters and materials be submitted online by going to <https://recruiting.cc.gatech.edu> or by e-mail to recruiting-cs@cc.gatech.edu. If done by email, the cover letter must include a URL pointing to application materials in PDF. The application material should include a full academic CV, teaching and research statements, a list of at least three references and up to three publications. Applicants are encouraged to clearly identify in their cover letter the area(s) that best describe their research interests.

Georgia Tech is an Affirmative Action/Equal Opportunity Employer.

Applications from women and under-represented minorities are strongly encouraged.

Georgia Institute of Technology College of Computing *Tenure-Track Faculty Positions*

The School of Interactive Computing (IC) within the College of Computing at the Georgia Institute of Technology invites applications for tenure-track faculty positions. Applications at all levels of seniority will be considered. Applicants must have an outstanding record of research (or clear potential thereof), a sincere commitment to teaching, and interest in engaging in substantive interdisciplinary research. All areas of research within IC are of interest for potential applicants.

IC consists of 35 faculty members and 120 graduate students working in a wide range of research areas including artificial intelligence, bioinformatics, computer graphics, computer vision, cognitive science, human-computer interaction, learning sciences and technology, machine learning, robotics, ubiquitous and wearable computing, visualization, health systems, entertainment and digital media, CS education, social networks, and music technology. The School is affiliated with the GVU Center and the newly-formed Robotics and Intelligent Machines (RIM@GT) Center. Our degree programs include the College-wide Computer Science Ph.D., a Ph.D. in Human-Centered Computing, and a Ph.D. program in Robotics, joint with other schools on campus. Masters programs include Computer Science and Human-Computer Interaction.

We strongly encourage application cover letters and materials be submitted online by going to <http://www.cc.gatech.edu/recruiting/> or by e-mail to recruiting@cc.gatech.edu. If done by email, the cover letter must include a URL pointing to application materials in PDF. The application material should include a full academic CV, teaching and research statements, a list of at least three references with contact information and up to three publications. Applicants are encouraged to clearly identify in their cover letter the area(s) that best describe their research interests. Please indicate consideration by the School of Interactive Computing in your application.

Reviews of submitted applications begin December 15, 2008. Full consideration will be given to those who apply by January 15, 2009. We expect most hiring decisions will be made by May 1, 2009.

Georgia Tech is an Affirmative Action/Equal Opportunity Employer.

Applications from women and under-represented minorities are strongly encouraged.

Harvard University *Postdoctoral Fellowship in Time Series Analysis*

A postdoctoral position is available for an outstanding individual capable of taking a leading role in research on the analysis of scientific time series. The position is co-funded by the IIC Time Series Center at Harvard and by a recent NSF grant supporting Interdisciplinary Machine Learning Research and Education:

(<http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0803409>).

The Fellow will work directly with Dr. Pavlos Protopapas and the Time Series Center group at the Initiative in Innovative Computing (IIC) at Harvard (<http://timemachine.iic.harvard.edu/>) and the Tufts machine learning group (<http://www.cs.tufts.edu/research/ml/>) headed by Profs. Carla Brodley and Roni Khardon.

A more detailed description of the position can be found at:

<http://timemachine.iic.harvard.edu/newpostdoc/>

A Ph.D. in Computer Science, Electrical Engineering, Astronomy or closely related field is required. We are looking for a candidate with a strong background and ability to perform original research in machine learning and strong understanding and/or interest in Astronomy. The start date is negotiable.

Applications should be sent by email to: helene_tingle@harvard.edu and should include a curriculum vitae, a brief summary of research, and three letters of recommendation.

Hofstra University Department of Computer Science *Assistant Professor in Computer Engineering*

The Department of Computer Science at Hofstra University invites applications for an anticipated tenure track faculty position in Computer Engineering starting September 2009 in the area of embedded systems with an emphasis on hardware design and implementation. Necessary qualifications include a doctorate in Computer Engineering or a related discipline, a strong commitment to effective teaching, including new curricula and laboratory development, scholarly research achievement, and potential to attract external funding.

Professional Opportunities



Endowed Professorships and Faculty Positions in Computational Discovery and Innovation

Michigan Technological University announces a Strategic Faculty Hiring Initiative (SFHI) that will add ten tenure-track positions, including at least two endowed professorships, during 2009. SFHI is an ongoing commitment to substantially expand Michigan Tech's faculty resources in targeted strategic areas of multidisciplinary research and inquiry. This initiative follows on last year's first SFHI which resulted in ten hires in the area of Sustainability.

Michigan Tech seeks to attract exceptional candidates whose interests and capabilities match the following objectives and activities: develop computationally-based tools, processes, and environments; extend the boundaries of high-performance computing (HPC); investigate and model complex systems; foster synergies in research methodologies, computational techniques, and innovation.

Michigan Tech seeks a diverse applicant pool from a wide range of disciplines in this strategic initiative. For full consideration, applications should be received by January 30, 2009; review will continue until all positions are filled. Attractive salary, benefit and start-up packages will be provided for successful applicants.

Details about the Michigan Tech Strategic Faculty Hiring Initiative in *Computational Discovery and Innovation* are available at www.mtu.edu/sfhi. Applicants should prepare their materials as a single PDF document, and send it as an e-mail attachment to provost@mtu.edu. More general information on Michigan Technological University is available at www.mtu.edu.

Michigan Tech is an internationally renowned doctoral research university located in Michigan's scenic Upper Peninsula, on the south shore of Lake Superior. Houghton provides a unique setting where natural beauty, culture, education, and a diversity of residents from around the world come together to share a superb living and learning experience.

Michigan Technological University is an equal opportunity, affirmative action employer/educational institution. Applications from women and minorities are encouraged.

Successful applicants are expected to teach undergraduate courses in computer engineering and computer science, and establish a viable research program. The Department has faculty members with research in cognitive neuroscience, computer vision, sensor networks, software engineering, computational logic and algebra, data mining, programming languages and algorithms. The Department offers BS in Computer Engineering, BS, BA, MA, and MS programs in Computer Science.

Hofstra University is a liberal arts institution located on Long Island, approximately 25 miles from Manhattan.

Please send a curriculum vitae, a statement of teaching and research interests, sample of publications and the names of three references to:

CE Search, Department of Computer Science
211 Adams Hall
Hofstra University
Hempstead, NY 11549

Applications will be considered until February 15, 2009.

Hofstra University is an equal opportunity employer, committed to fostering diversity in its faculty, administrative staff and student body, and encourages applications from the entire spectrum of a diverse community.

The Hong Kong University of Science and Technology
Department of Computer Science and Engineering
Assistant/Associate/Professor

The Department of Computer Science and Engineering is expected to have at least two tenure-track faculty positions open at the Assistant/Associate/Professor level for the 2009-2010 academic year. The Department is looking for faculty candidates with interests in multidisciplinary research areas related to Computational Science and Engineering, Bioinformatics and Biomedical Sciences, Environmental Science, Business and Financial Engineering, Social Sciences, and other Physical Sciences

and Engineering. Additional research areas including embedded systems, programming languages and compiler, and multi-core computing will be considered. Applicants should have a PhD degree and demonstrated potential in teaching and research.

Initial appointment will be made on contract terms for 3 years which is renewable subject to mutual agreement. Salary is highly competitive and will be commensurate with qualifications and experience. A gratuity will be payable upon satisfactory completion of contract. Fringe benefits including medical/dental benefits, annual leave and housing will be provided where applicable.

(continued)

Professional Opportunities

Applications should be sent through e-mail including a cover letter, curriculum vitae (including the names and contact information of at least three referees), a research statement and a teaching statement (all in PDF format) to csrecruit@cse.ust.hk. Priority will be given to applications received by 28 February 2009. Applicants will be promptly acknowledged through e-mail upon receiving the electronic application material.

The Department currently has 38 faculty members recruited from major universities and research institutions around the world, about 600 undergraduate students, and about 170 postgraduate students. The medium of instruction is English.

More information on the Department can be found at <http://www.cse.ust.hk>.

Iowa State University of Science and Technology Department of Computer Science Lanh and Oanh Nguyen Endowed Chair in Software Engineering

The Department of Computer Science at Iowa State University invites applications from distinguished scholars for the new Lanh and Oanh Nguyen Endowed Chair in Software Engineering beginning August, 2009. We are especially interested in candidates whose research integrates software engineering with other areas of computer science or interdisciplinary applications. The chair-holder will provide leadership in conducting research in advanced and emerging technologies, engage with top research institutions, stimulate transfer of innovative technologies to the private and public sectors, and enhance student learning in the recently established software engineering B.S. program.

A Ph.D. or equivalent in computer science, software engineering, or a closely related field is required. The successful candidate must have a nationally and internationally recognized record of outstanding research and publication in software engineering as well as demonstrated leadership in instruction and in expanding funded research programs. It is anticipated that the chair-holder will have the credentials to join the department as a full professor.

Our department consists of 27 full-time tenure-track faculty members with a strong core of research-active software engineering faculty. We offer B.S., M.S., and Ph.D. degrees in Computer Science and participate in new B.S. degrees in Software Engineering and in Bioinformatics and Computational Biology. We also participate in interdepartmental graduate programs in Bioinformatics and Computational Biology, Human-Computer Interactions, and Information Assurance. We have strong research and educational programs in Algorithms and Complexity, Artificial Intelligence, Bioinformatics and Computational Biology, Databases, Data Mining, Information Assurance, Programming Languages, Multimedia Systems, Operating Systems and Networks, Robotics, and Software Engineering. Our department has over \$4.2 million in active research grants. Including the above interdisciplinary activities, we contribute to active research and training grants totaling approximately \$20 million.

Applicants should send via email a curriculum vitae including teaching and research statements, and the names and email addresses of at least five references, to: endowedchair-search@cs.iastate.edu.

Chair of Search Committee
Department of Computer Science

Iowa State University
Ames, Iowa 50011-1041
E-mail: endowedchair-search@cs.iastate.edu
Web: www.cs.iastate.edu
Tel: 515-294-4377
Fax: 515-294-0258

Review of applications will begin on January 15, 2009 and will continue until the position is filled.

For more information, please visit us at <http://www.cs.iastate.edu>

Iowa State University is an equal opportunity employer. Women and members of underrepresented minorities are strongly encouraged to apply. Iowa State University is responsive to the needs of dual-career couples, offers family-friendly policies, and is the recipient of a National Science Foundation ADVANCE award for gender equity.

Iowa State University of Science and Technology Department of Computer Science Opening for Tenure-Track Position

The Department of Computer Science at Iowa State University is seeking outstanding candidates to fill a tenure-track position, to commence in August, 2009. We are especially interested in applicants at the assistant professor level in Software Engineering. Successful candidates will have demonstrated potential for outstanding research and instruction in computer science and software engineering. A Ph.D. or equivalent in computer science, software engineering, or a closely related field is required.

Our department currently consists of 27 full-time tenure-track faculty members. We offer B.S., M.S., and Ph.D. degrees in Computer Science and participate in new B.S. degrees in Software Engineering and in Bioinformatics and Computational Biology. We are active in interdepartmental graduate programs in Bioinformatics and Computational Biology, Human-Computer Interactions, and Information Assurance. We have strong research and educational programs in Algorithms and Complexity, Artificial Intelligence, Bioinformatics and Computational Biology, Databases, Data Mining, Information Assurance, Programming Languages, Multimedia Systems, Operating Systems and Networks, Robotics, and Software Engineering. Our department has over \$4.2 million in active research grants. Including the above interdisciplinary activities, we contribute to active research and training grants totaling approximately \$20 million.

A dynamic faculty, a moderate teaching load (typically 3 courses per year with one course reduction for active researchers and possible further reductions for junior faculty), a strong graduate program, and a well-funded research program provide an excellent academic environment.

Applicants should send via email a curriculum vitae including teaching and research statements, and the names and email addresses of at least three references, to faculty-search@cs.iastate.edu.

Chair of Search Committee
Department of Computer Science
Iowa State University
Ames, Iowa 50011-1041
E-mail: faculty-search@cs.iastate.edu
Web: www.cs.iastate.edu
Tel: 515-294-4377
Fax: 515-294-0258

Review of applications will begin on January 15, 2009 and will continue until the position is filled.

Iowa State University is an equal opportunity employer. Women and members of underrepresented minorities are strongly encouraged to apply. Iowa State University is responsive to the needs of dual-career couples, offers family-friendly policies, and is the recipient of a National Science Foundation ADVANCE award for gender equity.

King Abdullah University of Science and Technology (KAUST)

Computer Science and Applied Mathematics
Faculty Openings

King Abdullah University of Science and Technology (KAUST) is being established in Saudi Arabia as an international graduate-level research university dedicated to inspiring a new age of scientific achievement that will benefit the region and the world. As an independent and merit-based institution and one of the best endowed universities in the world, KAUST intends to become a major new contributor to the global network of collaborative research. It will enable researchers from around the globe to work together to solve challenging scientific and technological problems. The admission of students, the appointment, promotion and retention of faculty and staff, and all the educational, administrative and other activities of the University shall be conducted on the basis of equality, without regard to race, color, religion or gender.

KAUST is located on the Red Sea at Thuwal (80km north of Jeddah). Opening in September 2009, KAUST welcomes exceptional researchers, faculty and students from around the world. To be competitive, KAUST will offer very attractive base salaries and a wide range of benefits. Further information about KAUST can be found at <http://www.kaust.edu.sa/>.

KAUST invites applications for faculty positions at all ranks (Assistant, Associate, Full) in Applied Mathematics (with domain applications in the modeling of biological, physical, engineering, and financial systems) and Computer Science, including areas such as Computational Mathematics, High-Performance Scientific Computing, Optimization, Computer Systems, Software Engineering, Algorithms and Computing Theory, Artificial Intelligence, Graphics, Databases, Human-Computer Interaction, Computer Vision and Perception, Robotics, and Bio-Informatics (this list is not exhaustive). KAUST is also interested in applicants doing research at the interface of Computer Science and Applied Mathematics with other science and engineering disciplines. High priority will be given to the overall originality and promise of the candidate's work rather than the candidate's sub-area of specialization within Applied Mathematics and Computer Science.

An earned Ph.D. in Applied Mathematics, Computer Science, Computational Mathematics, Computational Science and Engineering, or a related field, evidence of the ability to pursue a program of research, and a strong commitment to graduate teaching are required. A successful candidate will be expected to teach courses at the graduate level and to build and lead a team of graduate students in Master's and Ph.D. research.

Applications should include a curriculum vitae, brief statements of research and teaching interests, and the

names of at least 3 references for an Assistant Professor position, 6 references for an Associate Professor position, and 9 references for a Full Professor position. Candidates are requested to ask references to send their letters directly to the search committee. Applications and letters should be sent via electronic mail to kaust-search@cs.stanford.edu. The review of applications will begin immediately, and applicants are strongly encouraged to submit applications as soon as possible; however, applications will continue to be accepted until December 2009, or all 10 available positions have been filled.

In 2008 and 2009, as part of an Academic Excellence Alliance agreement between KAUST and Stanford University, the KAUST faculty search will be conducted by a committee consisting of professors from the Computer Science Department and the Institute of Computational and Mathematical Engineering at Stanford University. This committee will select the top applicants and nominate them for faculty positions at KAUST. However, KAUST will be responsible for actual recruiting decisions, appointment offers, and explanations of employment benefits. The recruited faculty will be employed by KAUST, not by Stanford. Faculty members in Applied Mathematics and Computer Science recruited by KAUST before September 2009 will be hosted at Stanford University as Visiting Fellows until KAUST opens in September 2009. At Stanford, these Visiting Fellows will conduct research with Stanford faculty and will occasionally teach courses.

Max Planck Institute for Software Systems (MPI-SWS) Tenure-Track Faculty Openings

Applications are invited for tenure-track and tenured faculty positions in all areas related to the design, analysis and engineering of software systems, including programming languages, formal methods, security, distributed, networked and embedded systems, databases and information systems, and human-computer interaction. A doctoral degree in computer science or related areas and an outstanding research record are required. Successful candidates are expected to build a team and pursue a highly visible research agenda, both independently and in collaboration with other groups. Senior candidates must have demonstrated leadership abilities and recognized international stature.

MPI-SWS, founded in 2005, is part of a network of eighty Max Planck Institutes, Germany's premier basic research facilities. MPIs have an established record of world-class, foundational research in the fields of medicine, biology, chemistry, physics, technology and humanities.

Since 1948, MPI researchers have won 17 Nobel prizes. The new MPI-SWS aspires to meet the highest standards of excellence and international recognition with its research in software systems.

To this end, the institute offers a unique environment that combines the best aspects of a university department and a research laboratory:

a) Faculty receive generous base funding to build and lead a team of graduate students and post-docs. They have full academic freedom and publish their research results freely.

b) Faculty have the opportunity to supervise doctoral theses, teach graduate and undergraduate courses, and have the flexibility to incorporate teaching into their research agenda.

Professional Opportunities

c) Faculty are provided with outstanding technical and administrative support facilities as well as internationally competitive compensation packages.

Funds have been committed to grow the institute to a strength of 17 tenured and tenure-track faculty, and about 100 doctoral and post-doctoral positions. Additional growth through outside funding is expected. We maintain an open, international and diverse work environment and seek applications from outstanding researchers regardless of national origin or citizenship. The working language is English; knowledge of the German language is not required for a successful career at the institute.

The institute is located in Kaiserslautern and Saarbruecken, in the tri-border area of Germany, France and Luxembourg. The area offers a high standard of living, beautiful surroundings and easy access to major metropolitan areas in the center of Europe, as well as a stimulating, competitive and collaborative work environment. In immediate proximity are the MPI for Informatics, Saarland University, the Technical University of Kaiserslautern, the German Center for Artificial Intelligence (DFKI), and the Fraunhofer Institutes for Experimental Software Engineering and for Industrial Mathematics.

Qualified candidates should apply online at <http://www.mpi-sws.org/application>. The review of applications will begin on January 12, 2009, and applicants are strongly encouraged to apply by that date; however, applications will continue to be accepted until February 27, 2009.

The Max Planck Society is committed to increasing the representation of minorities, women and individuals with physical disabilities in Computer Science. We particularly encourage such individuals to apply.

Montclair State University Computer Science Department Assistant/Associate Professor Position

The Department of Computer Science invites applications for a tenure track position in Human Computer Interaction (HCI) and Visualization. The Department's 13 faculty members support the BS in Computer Science with an ABET CAC accredited track, the BS in Information Technology and the MS in Computer Science. The successful candidate will be able to create quality learning environments for a variety of computer science and information technology courses at the graduate and undergraduate levels. The position entails the ability to work as a member of interdisciplinary teams as the Department develops and modifies computing undergraduate and graduate programs with a planned doctoral program in computational science. In addition all faculty members are expected to have an ongoing research program that entails deep student involvement, to be involved in professional activities, and to pursue external funding to support their scholarship.

Qualifications: Candidates must have a Ph.D. in Computer Science or a very closely related discipline, expertise in Human Computer Interaction, ongoing computing research, and experience in teaching undergraduate computing courses. Candidates must also have good communication skills. Beyond these requirements we give preference to candidates with knowledge of software engineering, interfaces, or visualization, research in HCI, or demonstrated ability in working as a member of a team.

Salary and range is dependent on qualifications. Starting date is September 1, 2009. Send letter and documents that includes C.V., at least three professional and resume references, statement of research interests, teaching philosophy with experience, (include V number) and professional goals to:

Search Committee – F 21
Department of Computer Science
Montclair State University
Montclair, NJ 07043

Screening begins immediately and continues until the position is filled.

Montclair State University is New Jersey's second largest and fastest growing university offering a rich array of programs to approximately 16,000 undergraduate and post-baccalaureate students. Montclair State offers the advantages of a large university – a comprehensive undergraduate curriculum with a global focus, a broad variety of superior graduate programs through the doctoral level, and a diverse faculty and student body – combined with a small college's attention to students. Characterized by a distinguished cadre of teacher-scholars, and a deep commitment to the values of multicultural diversity, Montclair State University is located 14 miles west of New York City on a beautiful 200-acre suburban campus. Additional information can be found on the MSU website at <http://www.montclair.edu>.

National ICT Australia (NICTA) Information and Communications Technologies Research Leaders

National ICT Australia (NICTA) is a research organisation with more than 700 people located in 5 research laboratories. We focus on use-inspired basic research, commercialisation of research outcomes (through licensing and our successful spin-out program) and research training particularly at the PhD level.

NICTA's laboratories are located adjacent to our partner universities and our research staffs have honorary appointments in IT, Engineering or Computer Science Departments. Our PhD scholarship program allows us to attract top students from around the world to be supervised by our staff.

We have several vacancies for outstanding research managers and research leaders in a number of fields in our laboratories in Sydney, Canberra, Brisbane and Melbourne. In particular we are looking for:

- Research Laboratory Directors to take management responsibility for the research direction and operations of a laboratory.
- Senior Principal or Principal Researchers (Level E or Level D equivalent) in:
 1. Machine Learning
 2. Computer Vision
 3. Embedded Systems and Operating Systems
 4. Software Engineering

Candidates are expected to have an outstanding research record in commercial or academic research laboratories, with an appropriate level of managerial expertise. An outstanding track record in supervision of PhDs, commercialisation of research, patenting or publications is required.

An attractive salary package and relocation expenses can be negotiated.

Applications: Please visit NICTA Careers to view the criteria essential to this role and apply online (<http://nicta.com.au/director/careers.cfm>)

Closing date: 1 February 2009

National University of Singapore The School of Computing Tenure-Track Positions

Applications are invited for tenure-track positions at the Associate/Full Professor level. We are seeking outstanding candidates in the area of Computer Graphics who are looking for new opportunities to advance their careers. Recent PhD graduates with exceptional qualifications may be considered for appointment as Assistant Professor.

NUS is a highly ranked research university with low teaching loads, excellent facilities, and intensive international collaboration. The Singapore government has recently earmarked over S\$500 million for research and industrial projects focused on Digital Media and related areas. Significant funding opportunities abound for strong candidates. The School of Computing consists of active and talented faculty members working in a variety of areas, and attracts the best students (both undergraduate and graduate) in the region.

NUS offers highly competitive salaries, as well as generous benefits for housing and education. Singapore offers a vibrant international environment with low taxes.

Review of applications will be immediate and will continue until March 31, 2009. Interested candidates are requested to send the following materials to csrec@comp.nus.edu.sg:

- Curriculum Vitae
- Research Statement
- Names of at least five references

NEC Laboratories America Research Staff Members - Grid Storage

NEC Laboratories America is seeking researchers who are passionate about solving real world problems to join our Grid Storage Department in Princeton, NJ. The department engages in research in the areas of large scale reliable distributed systems with a focus on networked storage. We are currently looking for highly qualified individuals capable of carrying out independent research, with an interest in file and storage systems, data oriented Internet Services, or related areas.

Candidates must have:

- PhD in Computer Science (or equivalent)
- Experience in designing, building, and evaluating distributed systems and protocols
- Experience with storage systems (file systems, object or content based storage systems, databases)
- Demonstrated knowledge of the algorithmic and practical challenges arising in handling large volumes of data
- Demonstrated knowledge of fault tolerance and availability techniques in the context of local and wide area networked systems

Knowledge of emerging technologies like SaaS platforms and knowledge of C++ are a plus.

Candidates must be proactive and assume leadership in proposing and executing innovative research projects, as well as in developing advanced prototypes leading to demonstration in an industry environment. Candidates are expected to initiate and maintain collaborations with outside academic and industrial research communities.

For consideration, please forward your resume and a research statement to recruit@nec-labs.com and reference "Grid Storage" in the subject line.

EOE/AA/MFDV

New Jersey Institute of Technology Computer Science Department Assistant Professor/Software, Software Engineering

The Computer Science Department at New Jersey Institute of Technology (NJIT) is seeking to hire faculty for a tenure-track position beginning Fall 2009. Applications are invited from candidates with research and teaching interests in multiple aspects of software, such as Software Engineering and Web Technologies and Services. Experience with practical software building and/or Open Source projects will be a plus.

An applicant should have a PhD (or expect to receive one by summer 2009) in computer science. Applicant should have demonstrated potential for original research, a commitment to excellence in teaching, and familiarity with practical aspects of software. Salary is competitive and commensurate with appointment rank and qualifications.

NJIT is a public research university. The Department offers programs at the undergraduate, masters and PhD levels in Computer Science. The Department also offers undergraduate and graduate degree programs in Bioinformatics.

NJIT is located in Newark's University Heights, a multi-institutional campus shared with Rutgers University at Newark, the University of Medicine and Dentistry of New Jersey, and Science Park. NJIT's location in the NY metro area is ideal for research collaboration. The area is home to other universities and research laboratories as well as major financial, telecommunications, and pharmaceutical companies, offering excellent opportunities for collaboration, consulting, and industry sponsored research.

New Jersey enjoys a high standard of living and quality of life. Newark is minutes from New York City and close to the Jersey Shore, providing a wide range of cultural and leisure activities.

To apply, please visit njit.jobs and use posting #0600306

Please include the following items:

- CV
- research statement
- teaching statement
- cover letter

Please also ask at least three references to send letters of recommendation to faculty-search@cs.njit.edu.

For more information about the Computer Science Department, please see our website at cs.njit.edu.

NJIT is an equal opportunity, affirmative action, equal access employer and especially encourages applications from minorities, women and persons with disabilities.

North Carolina State University Department of Computer Science Faculty Positions

The Department of Computer Science at NC State University (NC State) seeks to fill multiple tenure track faculty positions starting August 16, 2009. Successful candidates must have a strong commitment to academic and research excellence, and an outstanding research record commensurate with the expectations of a major research university. Required credentials include a doctorate in Computer Science or a related field. While the department expects to hire faculty primarily at the Assistant Professor level, candidates with exceptional research records are encouraged to apply for senior positions.

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Professional Opportunities



Computational Biology/Bioinformatics Postdoctoral Positions

**Taylor Lab: Biology and Mathematics & Computer Science
EMORY UNIVERSITY
Atlanta, Georgia**

The Taylor Lab in the Biology and Mathematics & Computer Science departments at Emory University is currently recruiting postdoctoral scholars with expertise in Bioinformatics and Computational Biology. The lab currently has research interests in two major areas:

- Identifying and understanding functional regions in vertebrate genomes, particularly through the development of novel machine learning, data mining, and data integration methods incorporating genomic sequence and experimental data.
- Building software and infrastructure to make computational biology more accessible to experimentalists, including both the development of analysis and data management tools, and the development of novel user interfaces and interactive tools for analyzing large-scale data. We are seeking post-docs with complementary research interests. Well developed research plans that complement but extend the lab's current interests will be looked upon favorably. Specific area of academic background is flexible. However, because the lab is entirely computational, programming / software development experience should be important.

Applicants should submit a CV, a statement of research interests or research plan, and a few references to james.taylor@emory.edu. For more information see <http://bx.mathcs.emory.edu/joining/postdocs/>.

Emory University is an Affirmative Action/Equal Opportunity Employer and welcomes applications from women and members of minority groups.

Exceptional candidates in all areas of Computer Science will be considered, but of particular interest are candidates specializing in Computer Games and in Software Engineering. New Games faculty will play an active role in the Digital Games Research Center. New Software Engineering faculty will play an active role in the Center for Open Software Engineering and in the Secure Open Systems Initiative.

The Department is one of the largest and oldest in the country. It is placed in the NCSU's College of Engineering, which has recently received significant increases in private and public funding, faculty positions, and facilities that will assist the Department in attaining its goals.

The department's research expenditures and recognitions are growing steadily.

For example, we have one of the largest concentrations of the prestigious NSF Early Career Award winners (18 total).

NCSU is located in Raleigh, capital of North Carolina, which forms one vertex of the world-famous Research Triangle Park (RTP). RTP is an innovative environment, both as a metropolitan area with one of the most diverse industrial bases in the world, and as a center of excellence promoting technology and science.

The Research Triangle area is routinely recognized in nationwide surveys as one of the best places to live in the U.S. We enjoy outstanding public schools, affordable housing, and great weather, all in the

proximity of the mountains and the seashore.

Applications will be reviewed as they are received. The positions will remain open until suitable candidates are identified. Applicants are encouraged to apply by December 15, 2008. Applicants should submit the following online at <http://jobs.ncsu.edu> (reference position number 04-69-0808): cover letter, curriculum vitae, research statement, teaching statement, and names and complete contact information of four references, including email addresses and phone numbers. Candidates can obtain information about the department and its research programs, as well as more detail about the positions advertised here at <http://www.csc.ncsu.edu/>. Inquiries may

be sent via email to: facultyhire@csc.ncsu.edu.

North Carolina State University is an equal opportunity and affirmative action employer. In addition, NC State University welcomes all persons without regard to sexual orientation. Individuals with disabilities desiring accommodations in the application process should contact the Department of Computer Science at (919) 515-2858.

North Carolina State University (NCSU)
Department of Computer Science
Teaching Faculty Positions

The Department of Computer Science at North Carolina State University (NCSU) invites applications from

Professional Opportunities

outstanding committed teachers for Teaching Assistant Professor position(s) and Lecturer position(s) starting August 2009.

Candidates for Teaching Assistant Professor must have an earned doctorate in an appropriate discipline by August 15, 2009. The ideal candidate for this renewable, non-tenure-track position is someone whose career goals are focused on the development and delivery of excellent and innovative undergraduate Computer Science education. Successful candidates will interact with the regional and national community, and must be student-centered with excellent communication skills. They will also be expected to contribute to department efforts in scholarship and service. Participation in high quality research activities centered on teaching, learning and Computer Science related pedagogy is also expected.

Candidates for Lecturer must have earned at least an M.S. in Computer Science or closely related discipline by August 15, 2009, and have at least two years teaching experience. Primary responsibilities will include teaching undergraduate Computer Science courses, with initial focus on lower-division courses; development of course materials; and management of introductory course sequences – including supervision of Teaching Assistants and development of curricular materials, classroom demonstrations, and laboratory exercises.

For more details on the department and its programs, the university, and the area, see <http://www.csc.ncsu.edu/>.

Applications will be reviewed as they are received. The positions will remain open until suitable candidates are identified, although applicants are encouraged to apply by December 31, 2008. Applicants for either position should submit cover letter, curriculum vitae, teaching statement, research and/or service statement, and names and complete contact information of four references, including email addresses and phone numbers. Additional materials, especially evidence of teaching quality and innovation, are encouraged. Application materials should be submitted online in PDF form to <http://jobs.ncsu.edu> (reference either position number 04 69 0810 for Teaching Assistant Professor or 04 69 0811 for Lecturer). Candidates can obtain more detail about the positions advertised here at <http://www.csc.ncsu.edu/employment>. Inquiries may be sent via email to teaching_faculty_search@csc.ncsu.edu.

North Carolina State University is an equal opportunity and affirmative action employer. In addition, NC State University welcomes all persons without regard to sexual orientation. Individuals with disabilities desiring accommodations in the application process should contact the Department of Computer Science at (919) 515-2858.

Northeastern University, Boston, MA College of Computer and Information Science

Tenure-Track Faculty Positions

Invites applications for tenure-track faculty positions in computer science and information science, beginning in Fall 2009. Candidates will be considered at all levels and for all ranks. A PhD in computer science, information science, or a related discipline is required.

Computer Science

Candidates will be considered from all major disciplines of computer science.

We particularly welcome candidates with a demonstrated potential to excel in collaborative research spanning multiple research areas. The College has particular strengths in programming languages and software engineering, network security and distributed computing, database management and information retrieval, artificial intelligence, and human-computer interaction.

Information Science

Applicants with strong research programs in all areas of information science or information systems will be considered. We particularly welcome candidates with research related to human-computer interaction, information retrieval, natural language dialog, information security, and medical or health care informatics. Areas of current faculty research in information science include human-computer interaction, speech and language processing, information retrieval, machine learning and ontologies. Current application areas include health care informatics, legal text-based systems, and assistive technologies.

The College 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 26, with approximately 500 undergraduates, 275 Masters, and 55 Ph.D. students. In addition to degrees in computer science, the College offers an innovative bachelor's program in Information Science, and dual bachelor degree programs between computer and information science and the sciences, digital arts and business. The College also offers interdisciplinary master's programs in information assurance and health informatics.

Additional information and instructions for submitting application materials may be found at the following web site: <http://www.ccs.neu.edu/hiring/>. Screening of applications begins immediately and will continue until the search is completed.

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

Northwestern University Department of Electrical Engineering and Computer Science *Faculty Opening in Computer Engineering and Systems*

The Department of Electrical Engineering and Computer Science at Northwestern University invites applications for a tenure track faculty position in computer engineering and systems. Candidates at all levels will be considered. An earned Ph.D. in Computer Science, Computer Engineering, or a related field is required, as is demonstrated success within computer engineering research and/or experimental computer systems research. More specific areas of interest include embedded systems, parallel systems, high performance computing, distributed systems, operating systems, compilers, power aware systems and sensor networks. Successful candidates will be expected to carry out world class research, collaborate with other faculty, and teach effectively at the undergraduate and graduate levels. Compensation and start-up packages are negotiable and will be competitive.

Northwestern EECS consists of over 50 faculty members of national prominence whose interests span a wide range. The Computer Engineering and Systems division, with 17 faculty members, is likely to provide a particularly stimulating

collaborative environment for successful candidates. Northwestern University is located in the Chicago area.

Applicants should send a curriculum vitae, statements of research and teaching interests, three representative papers, and the names of at least three references for junior applicants and five for senior applicants, by email to ces-search@eecs.northwestern.edu or by regular mail to:

CES Faculty Search Committee
Department of Electrical Engineering
and Computer Science
Northwestern University
2145 Sheridan Road
Evanston, IL 60208

To ensure full consideration, applications should be received by January 15, 2009. Preference will be given to early applications, and interviews may start early, but no offer will be made prior to March 2009. The selected applicant will begin in the position either in September, 2009 or January, 2010.

Further information about the hiring department and the University is available at <http://www.eecs.northwestern.edu> and <http://www.northwestern.edu>.

Northwestern University is an Affirmative Action, Equal Opportunity Employer. Women and minorities are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.

Oakland University Computer Science and Engineering Department *Faculty Positions*

The Department of Computer Science and Engineering invites applications for one visiting and two tenure-track positions at the assistant professor level. The visiting position is contingent upon funding. Applicants must have completed a Ph.D. in Computer Science, Information Technology, Computer Engineering or a closely related field by the appointment date. Candidates must show exceptional promise in both research and teaching. Desired areas of interest include animation and computer gaming, database systems, enterprise computing, human computer interaction, parallel and multicore programming, and web technologies. Only applicants whose research and teaching interests fall under these or very closely related areas will be considered.

Applications should be submitted by January 19, 2009 but will be accepted until the positions are filled. Applicants should send a letter of intent, a statement of research and teaching interests, resume, and the names of three references to:

Search Committee
Department of Computer Science and
Engineering
Oakland University
Rochester, MI 48309-4478
E-mail: cesearch@secs.oakland.edu

The teaching statement should include a list of undergraduate and graduate courses that the applicant will be willing to teach as well as outlines of two courses that the applicant would like to introduce. Information about the current courses offered by the department is available on departmental web.

Oakland University, a public institute with over 17,000 students, is located in Michigan's Automation Alley. The CSE Department currently has an enrollment of approximately 40 doctoral, 150 graduate and 315 undergraduate students. Our undergraduate program in Computer Science is accredited by CAC/ABET. For more information on the CSE Department, please visit www.cse.secs.oakland.edu.

Oakland University is an equal opportunity employer.

Ohio State University Department of Computer Science and Engineering *Assistant Professor Position*

The Department of Computer Science and Engineering (CSE), The Ohio State University, invites applications for two tenure-track positions at the Assistant Professor level. The positions are open to all CSE areas (artificial intelligence, graphics and animation, networking, software engineering and programming languages, systems, and theory) with priority consideration given to candidates with cross-cutting interests in database systems and machine learning (e.g. data mining) and those in theory (broadly defined).

The department is committed to enhancing faculty diversity; women, minorities, or individuals with disabilities are especially encouraged to apply.

Applicants should hold or be completing a Ph.D. in CSE or a closely related field, and have a commitment to and demonstrated record of excellence in research as well as a commitment to excellence in teaching.

The department maintains and encourages multi-disciplinary research and education activities within and outside The Ohio State University.

To apply, please submit your application via the online database. The link can be found at:

<http://www.cse.ohio-state.edu/department/positions.shtml>

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

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

Ohio State University Department of Biomedical Informatics *Faculty and Postdoctoral Opportunities*

The Department of Biomedical Informatics (BMI) of (<http://bmi.osu.edu>) has opportunities for tenure and research track faculty and postdoctoral researchers. BMI seeks faculty candidates with research interests in Grid computing systems, distributed databases, information integration systems, and high-performance software systems with emphasis on supporting biomedical research. BMI applies novel algorithmic, computational and data management techniques in the areas of biomedical data retrieval and integration, imaging, simulation, clinical/translational informatics, computational biology, and comparative genomics. These techniques are integrated in and supported by software tools and systems developed through application of advanced computer science methodologies.

Applications:

Applicants should have a strong background in computer science with interest in medical applications, or a biomedical research background with substantial experience developing software to support basic, translational, and clinical research in biomedicine. All applications should hold a PhD, have a proven publication record in leading peer-reviewed journals and conferences, and demonstrated potential to obtain extramural funding. Senior faculty should have established research programs with extramural funding.

To apply: E-mail your cover letter (referencing which position you are applying for), CV, research and teaching

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statements, and list of at least three references to: BMI Search Committee at hpcfaculty@bmi.osu.edu. PDF submissions are preferred. Evaluation of applications is underway and will continue until positions are filled.

Purdue University Calumet Department of Mathematics, Computer Science, and Statistics *Assistant/Associate Professor of Computer Science*

The Department of Mathematics, Computer Science, and Statistics at Purdue University Calumet, Hammond, Indiana is accepting applications for a tenure-track position in computer science at the rank of Assistant Professor starting August 2009. An exceptionally qualified applicant may be considered for appointment at the rank of Associate Professor.

Requirements: A Ph.D. in Computer Science or in a related field with the equivalent of a Master's degree in Computer Science is required. Candidates with backgrounds in computer graphics or distributed computing are encouraged to apply. A record of effective teaching and evidence of the ability to establish a program of research is expected.

Responsibilities: Job duties will include teaching graduate and undergraduate courses in computer science, conducting research in field of expertise, overseeing senior level and graduate level computer science projects, overseeing student research, participating in recruitment of computer science majors, and participating in department and university service.

Screening of applicants will begin January 14, 2009 and continue until a suitable candidate is found. Applicants should forward a letter of application, curriculum vitae, statements of teaching philosophy and research plans, copies of undergraduate and graduate transcripts, and the names and contact information of three (3) references to:

Department of Mathematics,
Computer Science, and Statistics
Professor Roger Kraft
Computer Science Faculty Search
Chair
2200 169th Street
Hammond, IN 46323-2094

For department information please visit <http://www.calumet.purdue.edu>

Purdue University Calumet is an Equal Access, Equal Employment Opportunity, Affirmative Action employer that is committed to a diverse workplace.

Purdue University Department of Computer Science *Tenure-Track Positions*

The Department of Computer Science at Purdue University invites applications for tenure-track positions at the assistant professor level beginning August 2009. Outstanding candidates in all areas of Computer Science will be considered.

The Department of Computer Science offers a stimulating and nurturing academic environment. Forty-four faculty members direct research programs in analysis of algorithms, bioinformatics, databases, distributed and parallel computing, graphics and visualization, information security, machine learning, networking, programming languages and compilers, scientific computing, and software engineering. The department has implemented a strategic plan for future growth supported by the higher administration and recently moved into a new building. Further information about the department is available at: <http://www.cs.purdue.edu>

All applicants should hold a PhD in Computer Science, or a closely related discipline, be committed to excellence in teaching, and have demonstrated potential for excellence in research. Salary and benefits are highly competitive. Applicants should apply online at:

<https://hiring.science.purdue.edu>

Review of applications will begin on October 1, 2008, and will continue until the positions are filled. Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer fully committed to achieving a diverse workforce.

Purdue University Department of Statistics *Faculty Position in Statistics*

Applications are invited for a faculty position in the Department of Statistics, beginning August 2009, with a joint appointment in the Regenstrief Center for Healthcare Engineering. Appointment could be made at the Assistant, Associate, or Full Professor rank depending upon the successful candidate's skills and experience.

The Department of Statistics offers a stimulating and nurturing academic environment. More than thirty tenured and tenure-track faculty members direct research programs in a broad range of areas. Further information about the department is available at:

<http://www.stat.purdue.edu>

The Regenstrief Center for Healthcare Engineering is an integrated university-wide effort devoted to the study of healthcare delivery. Further information about the center is available at:

<http://www.purdue.edu/discoverypark/rche/>

All applicants should hold a Ph.D. in Biostatistics, Statistics, or a related field, be committed to excellence in teaching, and have demonstrated strong potential for excellence in biomedical related research that may include analysis of large existing data sets, data mining, active learning, longitudinal or hierarchical linear modeling, and design of experiments. Postdoctoral or relevant work experience is a plus. Excellent communication skills are necessary as there are multiple opportunities to interact with a broad range of established healthcare provider alliances throughout the United States. Salary and benefits are highly competitive.

Review of applications will begin on December 1, 2008, and will continue until the position is filled.

For all positions in Statistics, please visit: <http://www.stat.purdue.edu/hiring/> to apply.

Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer fully committed to achieving a diverse workforce.

Purdue University Computer Engineering in the School of Electrical and Computer Engineering *Faculty Positions*

The School of Electrical and Computer Engineering at Purdue University invites applications for faculty positions across the breadth of computer science/engineering at all levels. The Computer Engineering Area of the School (<http://engineering.purdue.edu/ECE/Research/Areas/CompEng>) has nineteen faculty members with active research programs in areas including AI, architecture, compilers, computer vision, distributed systems, embedded systems, graphics, haptics, HCI, machine learning, multimedia systems, networking, networking applications, NLP,

OS, robotics, software engineering and visualization. We will consider outstanding candidates in any area of computer science/engineering, although for at least one position there is a preference for human-centered computing, visualization and HCI. All positions require a PhD in computer science/engineering or a related field and a significant research record commensurate with the position. Applications should consist of a cover letter, CV, research statement, names and contact information for at least five references, and URLs for three to five papers. Applications should be submitted online at:

<https://engineering.purdue.edu/Engr/AboutUs/Employment/Applications>

Inquiries can be sent to compengr@ecn.purdue.edu. Review of applications will begin December 1, 2008. Applications will be considered as they are received, but for full consideration should arrive by February 1, 2009. Purdue University is an equal opportunity, equal access, affirmative action employer, fully committed to achieving a diverse workforce.

Purdue University Department of Statistics *Faculty Position, Statistics and Probability*

The Department of Statistics at Purdue University invites applications in all areas of statistics and probability for a faculty position beginning August 2009. This position is available at the Assistant Professor level; the Associate level will be considered for highly qualified applicants. Applicants in core areas of statistics and probability, as well as interdisciplinary areas are encouraged to apply.

The Department of Statistics offers a stimulating and nurturing academic environment. More than thirty-five tenured and tenure-track faculty members direct research programs in a broad range of areas. Further information about the department is available at:

<http://www.stat.purdue.edu>

All applicants should hold a PhD in Statistics, or a related field, be committed to excellence in teaching, and demonstrate strong potential for excellence in research. Salary and benefits are highly competitive.

Review of applications will begin on December 1, 2008, and will continue until the position is filled.

To apply, or to see all positions in Statistics, please visit

<http://www.stat.purdue.edu/hiring/>

Purdue University is an Equal Opportunity/Equal Access/Affirmative Action employer fully committed to achieving a diverse workforce.

Queens College of the City University of New York Department of Computer Science *Assistant Professor Position*

The Department of Computer Science at Queens College of CUNY is accepting applications for a tenure-track position at the Assistant Professor level starting Fall 2009, in any area of computer science.

Consult <http://www.cs.qc.cuny.edu> for further information.

Rutgers University Department of Computer Science *Tenure Track Faculty Position in Computational Biomedicine, Imaging and Modeling*

The Rutgers University Department of Computer Science (<http://www.cs.rutgers.edu>) and the Center for Computational Biomedicine, Imaging and Modeling (<http://www.cbim.rutgers.edu>) (CBIM) seek applicants in large scale data analytics for a tenure-track assistant professor faculty position starting

September 2009. We're particularly interested in synergy with CBIM and thus we're excited about receiving applications in all areas of large scale data analytics, such as computational science, physics-based modeling, visualization and human-computer interaction, computer vision, machine learning and data mining. Applicants whose research does not clearly demonstrate applications in large scale data analytics will not be considered.

Rutgers University offers an exciting and multidisciplinary research environment and encourages collaborations between Computer Science and other disciplines.

Applicants for this research/teaching position must, at minimum, be in the process of completing a dissertation in Computer Science or a closely related field, and should show evidence of exceptional research promise, potential for developing an externally funded research program, and commitment to quality advising and teaching at the graduate and undergraduate levels. Hired candidates who have not defended their Ph.D. by September will be hired at the rank of Instructor, and must complete the Ph.D. by December 31, 2009 to be eligible for tenure-track title retroactive to start date. Applicants should send their curriculum vitae, a research statement addressing both past work and future plans, a teaching statement, and arrange for four letters of recommendation to be sent on their behalf to hiring.cbim@cs.rutgers.edu. If electronic submission is not possible, hard copies of the application materials may be sent to:

CS/CBIM Search, c/o Mary Hoffman
Computer Science Department
Rutgers University
110 Frelinghuysen Road
Piscataway, NJ 08854

Applications should be received by February 15, 2009, for full consideration.

Rutgers University is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are especially encouraged to apply.

Rutgers University Department of Computer Science *Tenure-Track Faculty Positions*

The Department of Computer Science at Rutgers University invites applications for tenure-track faculty positions at the rank of Assistant, Associate or full Professor, with appointments starting in September 2009, subject to the availability of funds. All areas in experimental computer systems will be considered, but special emphasis will be given to pervasive computing and computer architecture.

Applicants for this research/teaching position must, at minimum, be in the process of completing a dissertation in Computer Science or a closely related field, and should show evidence of exceptional research promise, potential for developing an externally funded research program, and commitment to quality advising and teaching at the graduate and undergraduate levels. Hired candidates who have not defended their Ph.D. by September will be hired at the rank of Instructor, and must complete the Ph.D. by December 31, 2009 to be eligible for tenure-track title retroactive to start date.

Founded in 1766, Rutgers is the eighth oldest university in the United States, and is the flagship public research university of New Jersey. The Computer Science Department currently has 39 faculty members, many of whom are members in related research centers, including DIMACS (Discrete Mathematics and Theoretical Computer Science), WINLAB

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(Wireless Networking Laboratory), CBIM (Computational Biomedicine, Imaging and Modeling), and RuCCS (Rutgers Center for Cognitive Science).

Rutgers is located in central New Jersey, less than an hour from New York City and a half-hour from Newark International Airport; the New Brunswick train station sits on the Amtrak Northeast Corridor serving Boston through Washington, D.C. The area has excellent schools, a thriving theater scene, outstanding restaurants, and is in close proximity to a diverse range of outdoor pursuits.

Rutgers geographic location also facilitates collaborations with industrial research laboratories at the IBM T.J. Watson Research Center, AT&T Research, Bell Labs, Google (NYC Lab), NEC, Telcordia, and Siemens Research as well as the numerous neighboring Universities in the greater New York City area.

Applicants should send their curriculum vitae, a research statement addressing both past work and future plans, and a teaching statement to [hiring@cs.rutgers.edu](mailto: hiring@cs.rutgers.edu), and have three letters of recommendation sent to this same address. If electronic submission is not possible, hard copies of the application materials may be sent to:

Mary Hoffman
Computer Science Department
Rutgers University
110 Frelinghuysen Road
Piscataway, NJ 08854

Applications should be received by January 20, 2009 for full consideration.

Rutgers subscribes to the value of academic diversity and encourages applications from individuals with varied experiences, perspectives, and backgrounds. Females, minorities, dual-career couples, and persons with disabilities are encouraged to apply.

Rutgers is an affirmative action/equal opportunity employer.

Simon Fraser University Faculty of Applied Science Dean Position

A ONCE-IN-A-CAREER
OPPORTUNITY TO LEAD A BRAND
NEW FACULTY
DEAN, FACULTY OF APPLIED
SCIENCE

After 44 years of innovative teaching, research, and community outreach, Simon Fraser University (SFU) has become a university of choice for students who seek academic excellence and a memorable experience. As one of 'Canada's Top 100 Employers', SFU is also a preferred destination for high quality faculty and staff. With three campuses, 26,000 undergrad students, 5,000 grad students, 100,000 alumni and over 800 tenure-track faculty, SFU is a stimulating and vibrant organization that promotes connectedness and a spirit of community.

As SFU continues to grow, it has reorganized to create two new Faculties in Applied Sciences and in Communication, Art & Technology. As one of the Deans, you will work with the Vice-President, Academic & Provost to shape your Faculty to meet the demands of a changing world. You will support academic excellence and innovation and promote originality in research, scholarship and teaching. You will build a student experience and will attract and support creative faculty members who excel at teaching and research.

In this re-focused role, you will lead with enthusiasm and energy within a collegial and consultative structure, and

will bring together the needs of a Faculty composed of the Schools of Computing Science and Engineering Science. SFU has always been a pioneer of advanced learning in biomed, microelectronics, engineering physics, systems engineering, mechatronics and computer science. With your ties to industry and your appreciation for experiential learning, you will build strong linkages with the broader community. You will enhance the Faculty's research focus through support of your colleagues.

An accomplished academic and organizational leader, you have earned your Ph.D. in a relevant applied sciences discipline and have a reputation for excellent scholarship and teaching.

To explore this exciting opportunity further, please contact Caroline Jellinck, Brent Cameron or Tyler Cheyne at Ray & Berndtson in our Vancouver office at (604) 685-0261 or [tyler.cheyne@rayberndtson.ca](mailto: tyler.cheyne@rayberndtson.ca). To be considered for the positions please submit your resume and related information online at:

www.rayberndtson.ca/en/careers/8072

Simon Fraser University is committed to employment equity, welcomes diversity in the workplace and encourages applications from all qualified individuals, including women, members of visible minorities, Aboriginal persons and persons with disabilities. All qualified candidates are encouraged to apply, although Canadians and Permanent Residents will be given priority.

Singapore Management University (SMU) School of Information Systems (SIS) Openings for Faculty in Information Systems & Management

Applications for research focused tenure-track positions are invited at all levels.

The SIS research mission is to address deep technology challenges and management issues in information systems that have the potential to transform the way businesses operate.

Real-world industry sectors provide SIS with a test-bed and laboratory for experimentation, as well as a fertile breeding ground for new ideas. Our faculty and students apply their research results to solve real problems in the context of industry settings, and to create innovative information technology applications and systems. At the same time, our faculty actively publish in top quality computer science and management science conference and journal outlets.

The Singapore Management University (SMU) was officially incorporated in January 2000. It is a public-funded institution chartered in a unique way to provide the flexibility and operating characteristics of an American-style private university. Today, SMU is comprised of six schools, and is home to over 6,000 undergraduate students. It has a rapidly growing number of Master's & Ph.D. programmes and students.

We are seeking faculty candidates in our Information Systems & Management who are doing innovative research in the following areas:

- Pricing, competition and incentives in information goods and services
- Information Systems & Management research leveraging massive data sets, data mining and the fusion of numeric and text data
- IT-enabled transformation of global business processes
- Evolution of software platforms, processes and ecosystems

- Information security management & IT risk management
- Impact of IT on organizations, firms and industries

In addition to Information Systems & Management research, other faculty in SIS are working in the following areas: Data Management & Analytics; Information Security & Trust; Software Systems and Intelligent Systems & Interaction. SIS faculty members in all areas are strongly encouraged to collaborate on innovative research projects and also on integrative and interdisciplinary projects. SMU's Office of Research, the SIS's Research Centre and the Singapore government provide generous support for high quality research proposals.

SIS undergraduate and post-graduate programmes produce people who have depth in technology and innovative applications, and also understand IT management. The SIS undergraduate programme is committed to innovative pedagogy. SIS launched the first PhD programme in SMU in August 2006. SIS also launched a Master of IT in Business programme in August 2007.

Qualified candidates should initially submit a cover letter, curriculum vitae, research and teaching statements and samples of published work. Candidates may submit softcopy or hardcopy of their application materials to:

SIS Faculty Recruiting
Singapore Management University
School of Information Systems
80 Stamford Road
Singapore 178902
E-mail: [siscv@smu.edu.sg](mailto: siscv@smu.edu.sg)
Website: www.sis.smu.edu.sg

SMU-Carnegie Mellon Partnership
Selected candidates will be asked to interview at Carnegie Mellon University. In 2003, SMU and Carnegie Mellon University (Pittsburgh, USA) entered into a close partnership to jointly establish the SMU School of Information Systems (SIS). Carnegie Mellon faculty are actively participating in SIS faculty selection, mentoring and development, and in the design of the SIS undergraduate curriculum, research centre, and post-graduate and professional programmes

The Guildhall at SMU SMU-in-Legacy eCenter Faculty (Software Development Specialization)

eCenter Faculty: The Guildhall at SMU invites applicants for the position of eCenter faculty to teach in the graduate-level digital game development program in the Software Development specialization. Teaching positions are non-tenure track with a one-year renewable term and with a full-time teaching load. Full benefits accorded to full-time faculty are included.

Unique features of The Guildhall which affect faculty requirements follow:

- The Guildhall exists to serve the needs of the digital game development industry for the very best professionals who have learned how to work in the style and at the pace of the gaming industry.
- The Guildhall involves a program designed from the ground up in conjunction with industry professionals and reviewed on a regular basis to keep it current.
- A key element of The Guildhall's value proposition is its intimate involvement with the industry and with industry professionals. As such, The Guildhall will draw on industry expertise in a broad range of ways to enrich the program.

- The Guildhall intends to be a focus for the industry as well as its premier education source.

An important consequence of conceiving and positioning The Guildhall in this way is that key faculty members should have and maintain credentials as digital game development professionals as well as educators.

Position requirements include the following:

- A minimum of three years of recent experience in the game development industry, directly related to the position
- The ability to teach game development courses at a graduate level
- Fluency in the development tools, engines, and methods of the game industry
- A terminal degree (Ph.D.) in a related field
- Excellent C/C++ proficiency and design skills, solid math background, and solid engineering skills
- Some demonstration of teaching excellence
- A passion for developing and playing video games
- Excellent communication and organizational skills

Applicants should send a cover letter, vitae, and two letters of recommendation or names and contact information of two or more references to the:

Guildhall Faculty Search Committee
Software Development Specialization
5232 Tennyson Parkway, Building 2
Plano, Texas 75024

To ensure full consideration for this position, the application must be postmarked or emailed by January 31, 2009, but the committee will continue to accept applications until the position is filled. The committee will notify applicants of its employment decision after the position is filled. Please note that hiring is contingent upon the satisfactory completion of a background check.

Informal inquiries about this position and the evaluation process may be addressed to [diane@smu.edu](mailto: diane@smu.edu).

All letters will be acknowledged. SMU will not discriminate on the basis of race, color, religion, national origin, sex, age, disability, or veteran status. SMU is also committed to nondiscrimination on the basis of sexual orientation.

Telefonica Research Lab, Barcelona Internet Systems Group Researchers/PostDocs/Interns

Telefonica Research Lab, Barcelona started in November 2006 and is now growing strong. We are looking to fill a variety of positions including outstanding Researchers and PostDocs in the areas of distributed systems and networks (systems, p2p/content distribution, social networks, databases/storage, fault tolerance, wireless networks, graph theory, complex networks).

We also accept intern applications all year around and we have slots for short-term as well as long-term academic visitors.

To apply for a position at Telefonica Research Barcelona, please send an e-mail to [careers_research@tid.es](mailto: careers_research@tid.es) with your CV, research statement, cover letter, and two reference letters.

We offer competitive packages and the opportunity to join a growing and fast pace lab in an open and collaborative research environment.

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Professional Opportunities

Temple University Department of Computer and Information Science Senior Faculty Position

Applications are invited for the position of a senior faculty at Associate or Full Professor level in the Department of Computer and Information Sciences in the College of Science and Technology at Temple University. Applicants are expected to have outstanding research accomplishments, a record of funded research in computer science/engineering, and a commitment to quality undergraduate and graduate programs and instruction. Applications from candidates with significant systems research are encouraged and interdisciplinary/multidisciplinary research track records is a plus. Candidates from industry with a strong record are also encouraged.

Areas of interest include, but are not limited to:

- Large Scale Distributed Computing Systems
- Wired and Wireless Networks
- Trustworthy and Reliable Computing Systems

Applications consisting of curriculum vitae, a statement of recent achievements and visions for research and teaching, up to three representative publications, and names and addresses of at least three references should be submitted online at:

<http://academicjobsonline.org>

Review of candidates will start on February 15, 2009 and will continue until the position is filled. For further information check <http://www.temple.edu/cis> or email to facultysearch@cis.temple.edu.

Temple University is an equal opportunity, equal access, affirmative action employer committed to achieving a diverse community. Women and minorities are especially encouraged to apply. AA, EOE, m/f/d/v.

Texas A&M University Department of Computer Science Tenure-Track Faculty Positions

Applications are invited for tenure-track positions, starting fall 2009, in the Department of Computer Science of the Dwight Look College of Engineering at Texas A&M University. As part of a long-term plan to increase the size and improve quality, the department is expanding with an assistant professor position in the area of robotics. Top candidates in other areas at all professor levels will also be considered. Candidates must have a Ph.D. degree and will be expected to teach, perform research, and supervise graduate students.

The Department of Computer Science has 40 tenured, tenure-track faculty and 4 senior lecturers. Texas A&M University CS faculty members are well recognized for contributions to their fields. The department currently has one National Academy of Engineering member, five IEEE Fellows, one ACM Fellow and over ten PYI/NYI/CAREER awardees. Additional information about the department can be found at www.cs.tamu.edu.

Texas A&M University CS faculty applicants should apply online at: apply.cs.tamu.edu/tenuretrack

For questions about the positions, contact: search@cs.tamu.edu

Applications are welcome from dual career couples.

Texas A&M University is an equal opportunity/affirmative action employer and actively seeks candidacy of women and minorities.

Tufts University Computer Science Department Cognitive Science - Associate or Full Professor

The Department of Computer Science at Tufts University invites applications for a faculty appointment at the Professor or Associate Professor level in Cognitive Science or related area to begin in September 2009. We seek outstanding candidates who can both build the Computer Science presence in the new Tufts Program in Cognitive and Brain Science and complement Department's expertise in Machine Learning, Human-Computer Interaction, Graphics, and/or Computational Biology.

Tufts is among the smallest universities to have been nationally ranked as a "Research Class 1" University. Located in Boston, it has a dynamically growing computer Science Department. Located just three miles from Cambridge, MA, home to Harvard and MIT, Tufts faculty have opportunities for collaboration and participation in the rich intellectual life of the Boston area. For more information about the department, this position and instructions on how to apply, please visit:

<http://www.cs.tufts.edu/facultysearch09/>

Screening of applications will begin December 1, 2008 and continue until the position is filled. Tufts University is an Affirmative Action/Equal Employment Opportunity Employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

Tufts University Computer Science Department Graphics & Visualization - Associate or Full Professor

The Department of Computer Science at Tufts University invites applications for a faculty appointment at the Professor or Associate Professor level in Graphics and/or Visualization to begin in September 2009. We seek outstanding candidates who can both build the Computer Science presence in the new Tufts Center for Scientific Visualization and complement the Department's current research strengths.

Tufts is among the smallest universities to have been nationally ranked as a "Research Class 1" University. Located in Boston, it has a dynamically growing computer Science Department. Located just three miles from Cambridge, MA, home to Harvard and MIT, Tufts faculty have opportunities for collaboration and participation in the rich intellectual life of the Boston area. For more information about the department, this position and instructions on how to apply, please visit:

<http://www.cs.tufts.edu/facultysearch09/>

Screening of applications will begin December 1, 2008 and continue until the position is filled.

Tufts University is an Affirmative Action/Equal Employment Opportunity Employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

University of California, Berkeley Parallel Computing Laboratory Postdoctoral Scholar - Employee

The Parallel Computing Laboratory ("Par Lab") at University of California, Berkeley has an opening for a Postdoctoral Scholar - Employee with a negotiable start date. A doctoral degree in Computer Science or related discipline with emphasis on Computer Applications,

Software Design Patterns, Languages, Compilers, Libraries, Operating Systems, or Architectures is required. Salary range is \$39,636-\$56,856 depending on qualifications. Applicants must have received their Ph.D. within the last three years.

The position is appointed for one year, with a likely extension to two years. The Par Lab includes experts in Computer Applications (James Demmel, John Wawrzynek), Software Engineering (Kurt Keutzer, Tony Keaveny, Nelson Morgan, David Wessel), Programming Languages (Kathy Yelick, Ras Bodik), Operating Systems (John Kubiawicz, David Patterson), and Architecture (Krzysztof Asanovic).

To learn more about the mission of the Par Lab, see:

<http://parlab.eecs.berkeley.edu>

Financial support for the Par Lab is primarily from industry, with Intel and Microsoft as our foundation partners.

The University of California offers a competitive benefits package including medical, dental, vision, life insurance, accidental death and dismemberment insurance, and short and long term disability insurance.

The closing date for this position is January 15, 2009. Candidates should submit a full academic Curriculum Vitae with a letter of interest and include three references. Please refer to the UC Berkeley Statement of Confidentiality at <http://apo.chance.berkeley.edu/evaltr.html>. Minorities and women encouraged to apply.

Electronic submission of application materials should be sent to:

parlab-postdoc@cs.berkeley.edu

The subject line should include: Postdoctoral Scholar Positions - "Par Lab"

The University of California is an equal opportunity/affirmative action employer.

University of California, Davis Department of Computer Science Faculty Position

The Department of Computer Science at the University of California at Davis invites applications for a faculty position at all ranks in Computer Science for an appointment with a begin date in fall 2009. We are targeting recruitment in the general areas of programming languages, software engineering, and database systems. Applicants should have received (or be about to receive) a doctoral degree in Computer Science or a related field. Candidates must have demonstrated excellence in research and a commitment to quality teaching. Candidates at the more senior levels should have a strong record of publications and research funding, proven leadership skills in collaborative research efforts, and an excellent teaching record at the undergraduate and graduate level. Successful applicants will be expected to establish a top-quality research program and to teach both graduate and undergraduate courses. The department is particularly interested in candidates who have experience working with students from diverse backgrounds and a demonstrated commitment to improving access to higher education for disadvantaged students.

Interested persons should apply using the link given at:

<http://www.cs.ucdavis.edu/department/employ>

Applications include a vitae, a personal statement, a select subset of publications, and the names of three references. Review of completed applications will begin

January 15, 2009. The position remains open until filled.

UC Davis is responsive to the concerns of dual-career couples and offers a Partner Opportunity Program. UC Davis is an affirmative action/equal employment opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, individuals with disabilities and veterans.

University of California, Los Angeles Computer Science Department Tenure-Track Positions

The Computer Science Department of 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, especially in machine learning, software systems, and emerging technologies related to computer science such as bio-computing, nano architectures, and nanosystems. Applications are also encouraged from distinguished candidates at senior levels. Quality is our key criterion for applicant selection. Applicants should have a strong commitment both to research and teaching and an outstanding record of research for their level of seniority.

The University of California is an Equal Opportunity/Affirmative Action Employer. The department is committed to building a more diverse faculty, staff and student body as it responds to the changing population and educational needs of California and the nation.

To apply, please visit: <http://www.cs.ucla.edu/recruit>

Faculty applications received by January 15 will be given full consideration.

University of California, Merced School of Engineering Associate or Full Professor of Electrical Engineering

The School of Engineering at the University of California, Merced invites applications for a tenured professorship in Electrical Engineering and Computer Science with the possibility of a supplemental endowed chair. Fields of interest include systems, communication, signal processing, wireless technology and networking, RF hardware, control, circuits and sensors. Other areas in Electrical Engineering will be given consideration as well. We have multiple positions in Electrical Engineering and Computer Science and related areas, and especially encourage cohort applications. Candidates should demonstrate outstanding leadership potential, pertinent to developing a future Electrical Engineering and Computer Science program and to promoting the success of the University of California's newest campus. The successful candidate will be expected to teach undergraduate and graduate courses in Electrical Engineering, as well as contribute to courses that further our goals in interdisciplinary education. A Ph.D. in Electrical Engineering or a related field and demonstrated excellence in research are required.

For more information: <http://eecs.ucmerced.edu>.

AA/EOE

University of California, Merced School of Engineering Tenured and Tenure-Track Professors in Computer Science

Applications are invited for tenured and tenure-track faculty positions in

Professional Opportunities

West Virginia University/CITeR

Tenure-Track Positions in Biometrics, Identity Management and Computer Security

The Lane Department of Computer Science and Electrical Engineering invites applications for two tenure track faculty positions at the assistant or associate professor level. Applicants should be interested in contributing to and shaping WVU's rapidly growing programs in identification technology integral to the NSF Center for Identification Technology Research (CITeR). Applicants should demonstrate technical expertise in computer vision, cryptography, intelligent systems and storage, or another relevant area. Successful candidates are expected to develop a vigorous extramurally funded research program in biometrics, identity management or related computer security topics, build effective collaborations, and demonstrate commitment to teaching excellence. An earned Ph.D. in computer science, computer engineering, electrical engineering, or a closely related discipline is required.

West Virginia University (www.wvu.edu) is a comprehensive land grant research institution enrolling over 28,000 students in 113 degrees programs, including engineering and health sciences. CITeR (www.citer.wvu.edu) is a multi-university National Science Foundation Industry/University Cooperative Research Center (I/UCRC) led by WVU. The Center serves as the campus' focal point for discovery and innovation in identification research. With its 20 federal government and industry affiliates and interdisciplinary set of participating faculty, CITeR provides unparalleled opportunity for cooperative research. CITeR serves as the academic lead for the FBI's Biometric Center of Excellence, partners with the University of Arizona in the DHS Center of Excellence in Border Security and Immigration, and is the foundation for WVU's designation as a Center of Excellence in Information Assurance Education. The Lane Department (www.csee.wvu.edu) has 31 tenure-track faculty members, 400 undergraduate students, and 280 graduate students. It offers BS degrees in Computer Science, Computer Engineering, Electrical Engineering, and Biometric Systems; MS degrees in Computer Science, Software Engineering, and Electrical Engineering; and Ph.D. degrees in Computer Science, Computer Engineering and Electrical Engineering. The Department conducts approximately \$5 million annually in externally sponsored research, with major research activities in the areas of biometric identification, nanotechnology, power systems, software engineering, and wireless networks. Strong opportunities exist for building collaborative partnerships with nearby federal research facilities, including the Department of Defense, Department of Energy, FBI, and NASA.

Interested candidates must send a letter of application, a CV, contact information for at least three technical references, a research statement, and a statement of teaching philosophy to biometrics-search@mail.wvu.edu. Review of completed applications will begin January 1, 2009, and the positions will remain open until filled. For further information, contact Associate Professor Arun Ross, Search Chair, at Arun.Ross@mail.wvu.edu (queries only).

West Virginia University is an affirmative action, equal opportunity employer dedicated to building a culturally diverse and pluralistic faculty and staff committed to teaching and working in a multicultural environment. Applications are strongly encouraged from women, minorities, individuals with disabilities and covered veterans. Dual career couples are also encouraged to apply.

Computer Science to begin July 1, 2009. We seek exceptionally qualified candidates in all areas of Computer Science. A Ph.D. in Computer Science or a related field and demonstrated excellence in research are required. For more information: <http://eecs.ucmerced.edu> AA/EOE

University of California, Merced School of Engineering Full-Time Lecturer Position

Applications are invited for one Lecturer with Potential for Security of Employment (PSOE) position in Computer Science to begin July 1, 2009. A principal requirement is demonstrated excellence in teaching undergraduate core courses in Computer Science and Engineering. The successful candidate will also be actively involved in university-wide teaching-related projects and student development programs. Ph.D. degree or equivalent experience in Computer Science or a related field is required.

For more information: <http://eecs.ucmerced.edu/jobs>. AA/EOE

University of California, Merced School of Engineering Tenured and Tenure-Track Professors in Computer Science

Applications are invited for tenured and tenure-track faculty positions in Computer Science to begin July 1, 2009. We seek exceptionally qualified candidates in all areas of Computer Science. A Ph.D. in Computer Science or a related field and demonstrated excellence in research are required. For more information: <http://eecs.ucmerced.edu> AA/EOE

University of California, San Diego Department of Computer Science Multiple Faculty Positions

The UCSD Department of Computer Science and Engineering (CSE) seeks to fill multiple faculty positions at

tenured or tenure-track positions. We invite applications at all levels in all areas of computer science and computer engineering, with particular interest in the areas of algorithms and theory, bioinformatics, and graphics. Faculty positions in other than the tenured/tenure-track series are also available. Exceptional candidates in all areas will be given serious consideration.

The department is looking for applicants with outstanding research credentials. Successful applicants are expected to lead a vigorous research program and to have a strong commitment to teaching. A Ph.D. in computer science or a related area is desired. Salary and rank will be commensurate with qualifications in conformance with University of California policies.

CSE is home to over 50 faculty and 300 graduate students who together span a range of research areas in computer science, computer

engineering, and bioinformatics. In addition, the department works closely with the Center for Networked Systems (CNS), the California Institute for Telecommunications and Information Technology (Calit2), the San Diego Supercomputer Center (SDSC), and the Center for Wireless Communications (CWC), which provide unique opportunities and resources to our members. Finally, the department has recently occupied a newly constructed facility that provides significant space resources for a wide range of research activities. More information about the department can be found on the Web at <http://www.cs.ucsd.edu/>

Application Procedure

For details on how to apply click here: <http://www.cse.ucsd.edu/home/prospectivfaculty/currentad.html>

Closing Date: We encourage candidates to apply online by clicking on the URL listed above. Review of applications will begin on January 7, 2009 and will continue until positions have been filled.

Applicants are asked to include a personal statement summarizing teaching experience. Please highlight any leadership efforts, and/or contributions to promotion of diversity in the workplace.

UCSD is an Equal Opportunity/Affirmative Action Employer with a strong institutional commitment to the achievement of excellence and diversity among its faculty and staff. Women and minority applicants, veterans and persons with disabilities are encouraged to apply.

For applicants with interest in spousal/partner employment, please see our Website for the UCSD Partner Opportunities Program.

University of California, Santa Barbara

College of Engineering
Faculty Position - Veeco Endowed Chair in
Scanning Probe Techniques

UC Santa Barbara is now accepting applications and nominations for the inaugural holder of the Veeco Endowed Chair in Engineering and the Sciences. Candidates for the endowed chair must hold a Ph.D. in a field that has benefited from nanoscale characterization, including but not limited to Materials Science, Engineering, Physics, Chemistry, Biology, Energy, Multidisciplinary Nanoscience or related discipline. Candidates with a research emphasis on scanning probe technologies, and who have developed new scanning probe methodologies to advance the state of the art in their field, are strongly encouraged to apply. The holder of the Veeco Chair may be appointed at a senior, tenured level, with an anticipated start date of July 1, 2009, either in the College of Engineering or in the Division of Mathematical, Life, and Physical Sciences.

For more details, please see:

<http://www.engineering.ucsb.edu/positions>

All applicants and nominees will be held in confidence by the Search Committee. Please send CV, a statement of research and teaching interests, and a representative recently published paper to:

Dean Matthew Tirrell
Attn: Veeco Endowed Chair Search
College of Engineering
University of California
Santa Barbara, CA 93106

or to Veeco-Chair@engineering.ucsb.edu

Applications will be shared with appropriate campus departments in the sciences and engineering fields. Apply by March 31, 2009 for primary consideration;

(continued)

Professional Opportunities

however, position will remain open until filled.

An EO/AA Employer

University of Central Florida School of Electrical Engineering & Computer Science Faculty Positions

UCF School of Electrical Engineering and Computer Science is looking for exceptional tenure-track faculty at the assistant professor level. EECS is specifically interested in hiring up to six candidates with research in the following two areas.

Software Engineering: Software processes and workflows, secure and reliable software architectures, software tools and development environments, program comprehension and visualization, software economics, engineering embedded and real-time software, ubiquitous and pervasive computing, empirical studies, and formal methods.

Space Systems: small satellites, space weather, sensors, embedded systems, imaging systems, communications, command and data management, power and propulsion.

Energy: Renewable energy research and technology, including photovoltaic applications, distributed electrical power generation and distribution, integrated power networks, renewable energy systems and storage, renewable power system control, computational methods for energy systems, and applications of power electronics in energy conversion systems.

EECS offers a competitive salary and start-up package, and UCF provides generous benefits. New faculty members have graduate student support and significantly reduced teaching loads.

Applicants should have a Ph.D. in a related area to EECS disciplines by the start of the appointment and a strong commitment to the academic process, including teaching, scholarly publications and sponsored research. Successful candidates will have a record of high-quality publications and be recognized for their potential.

EECS at UCF is the oldest Ph.D. granting CS program in the state of Florida and has a rapidly growing educational and research program with nearly \$12 million in research contracts and over 500 graduate students and 2,000 undergraduates. UCF is strongly committed to continuing the buildup of strength in EECS, including a move in late 2006 to a new, state-of-the-art building: the Harris Corp. Engineering Center.

Research sponsors include NSF, NASA, DOT, ARO, ONR, PEOSTRI, RDECOM and other agencies of the DOD. Industry sponsors include Adaptec, ATI, Boeing, Canon, Electronic Arts, Harris, Honeywell, IBM, Imagesoft, Intel, Lockheed Martin, Lucent, Oracle and Sun Microsystems as well as local high-tech start-ups.

UCF has over 50,000 students and is among the nation's top-10 largest universities. Located in Orlando, EECS and UCF are at the center of the I-4 High Tech Corridor with an excellent industrial base in telecommunications, computer systems, semiconductors, defense, space, lasers, simulation, software and the world-renowned entertainment/theme park industry. Exceptional weather, easy access to the seashore, one of the largest convention centers in the nation and an international airport that is among the world's best are just a few features that make the UCF/Orlando area ideal.

To submit an application, please go to:

http://www.eecs.ucf.edu/facsearch/online_app.html.

UCF is an Equal Opportunity/Affirmative Action employer. Women and minorities are particularly encouraged to apply.

University of Colorado at Boulder

Faculty Positions in Computational Biology

The University of Colorado at Boulder invites applications for two tenure-track faculty positions in the broad areas of computational biology and bioinformatics, under the auspices of the Colorado Initiative in Molecular Biotechnology (cimb.colorado.edu). Individuals with interests in developing and applying computational or mathematical methods to biological systems are encouraged to apply.

See www.cs.colorado.edu for more details.

University of Colorado at Boulder

Faculty Positions in Cyber-Physical Systems

The University of Colorado at Boulder invites applications for two tenure-track faculty positions in the broad areas of cyber-physical systems. We are particularly interested in applicants working in the areas of applied discrete algorithms and machine learning as applied to cyber-physical systems. Applied areas of interest include, but are not limited to, robotics, smart vehicles and systems. These positions are at the Assistant Professor level, although outstanding senior candidates at higher ranks may be considered. Candidates must have a PhD degree and a demonstrated commitment to teaching at undergraduate and graduate levels, and will be expected to develop an internationally recognized research program.

See www.cs.colorado.edu <<http://www.cs.colorado.edu>> for more details.

University of Hong Kong Department of Computer Science Faculty Positions

The Department of Computer Science in the University of Hong Kong invites applications for Associate/Assistant Professor, from as soon as possible on a three-year fixed-term basis, with consideration for tenure during the second three-year contract (internal reference: 2008/2009-207).

Applicants should have a Ph.D. degree in Computer Science, Computer Engineering, or related fields, and a strong interest in research and teaching. A solid track record in research is essential.

For more information and application procedure, please visit:

<http://www.cs.hku.hk/people/vacancies/>

Enquiries can be sent to recruitment@cs.hku.hk

<<mailto:recruitment@cs.hku.hk>>.

University of Illinois at Urbana-Champaign

Department of Computer Science Thomas Siebel Endowed Chair in Computer Science

Search #12132

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

The Department of Computer Science invites nominations and applications for the Thomas Siebel Endowed Chair in Computer Science. This position is a regular, full-time, tenured appointment at the full professor level. An earned doctorate and credentials consistent with a tenured appointment at the full professor

level are required. Individuals in all areas of computer science will be considered.

Computer Science at Illinois is internationally recognized for its breadth and depth of research and has strong collaborative relations with the Beckman Institute for Advanced Science and the National Center for Supercomputing Applications (NCSA).

Successful candidates must initiate and conduct independent research and perform academic duties associated with our BS, MS, and PhD programs, and have the ability to teach effectively at both the graduate and undergraduate levels.

Salary is open and is based on qualifications. A starting date of August 16, 2009, is anticipated, but is open to negotiation.

To ensure full consideration, applications must be received by February 20, 2009. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after February 20, 2009.

Applicants should submit an application letter, curriculum vitae with a list of references, teaching statement and research statement via email (preferred) to: admin@cs.uiuc.edu, or via US Mail to:

Department of Computer Science
UIUC
c/o Thomas Siebel Chair Search
201 N. Goodwin Avenue
2232 Siebel Center
Urbana, IL 61801

For further information, contact Karen Stahl (kstahl@illinois.edu; 217 244-7949).

The University of Illinois is an Affirmative Action, Equal Opportunity Employer.

University of Iowa

Computer Science Department Assistant Professor Position, Fall 2009

The Computer Science Department seeks applications for one tenure-track assistant professor position commencing August 2009. Applications from all areas of computer science and informatics are invited. We welcome applicants doing research at the frontiers of computing in connection with other disciplines.

The Department and the College of Liberal Arts and Sciences are strongly committed to gender and ethnic diversity; the strategic plans of the University, College, and Department reflect this commitment.

The Department offers BA, BS, MCS, and PhD degrees in Computer Science, and in Fall 2007 added BA and BS degrees in Informatics (see <http://www.cs.uiowa.edu/Informatics>).

Candidates must hold a PhD in computer science, informatics, or a closely related discipline. Applications received by January 15, 2009, are assured of full consideration. Applications should contain a CV and research and teaching statements. Successful applicants must demonstrate potential for research and teaching excellence in the environment of a major research university.

URL for additional information and on-line application:

<http://www.cs.uiowa.edu/hiring/>

The University of Iowa is an equal opportunity/affirmative action institution. Women and minorities are strongly encouraged to apply.

University of Massachusetts Amherst

Isenberg Professorship in Integrated Life Sciences Associate or Full Professor Position

The College of Natural Sciences and Mathematics (NSM) at UMass Amherst seeks candidates at the Associate or Full Professor level for the NSM Isenberg Endowed Professorship. We seek a prominent individual who does integrative work in any area of the life sciences using interdisciplinary approaches that complement existing strengths in Systems Biology, Biomedicine, Biomaterials, Nanomedicine, Bioinformatics, and Mathematical or Computational Biology. The Isenberg Professorship was established with the support of Ronnie and Eugene M. Isenberg to catalyze interdisciplinary work in management, engineering and science by promoting integrative approaches using technology, innovation and entrepreneurship. The successful candidate will participate in campus initiatives by working collaboratively across NSM disciplinary boundaries and interacting closely with existing Isenberg Professors in the College of Engineering and the Isenberg School of Management.

The Isenberg Professor will benefit from an environment at the UMass Amherst campus that promotes life sciences research and innovation through interdisciplinary collaboration. These efforts are bolstered by the Commonwealth of Massachusetts \$1 billion Life Sciences Initiative that includes increased faculty recruitment and capital expansion on the Amherst campus.

The NSM Isenberg Professor will hold an academic appointment in the appropriate participating department(s) of NSM. These include Biochemistry and Molecular Biology, Biology, Computer Science, Polymer Science and Engineering, Chemistry, Mathematics and Statistics, and Physics. Rank and salary will be commensurate with qualifications and experience.

Evaluation of applications will begin on December 31, 2008 and continue until the position is filled.

Applications should include a curriculum vitae, a summary of research interests and accomplishments (5 pages), and copies of 1-3 key publications. Candidates will be contacted by the search committee to arrange for at least three letters of recommendation after the initial evaluation of applications is completed.

Applications should be mailed to:

Ms. Cheryl Daggett, Personnel
Manager

Dean of the College of Natural
Sciences and Mathematics
Lederle Graduate Research Tower-
Room 716

University of Massachusetts
Amherst, MA 01003

or sent by email to daggett@nsm.umass.edu

Please include Isenberg Professorship Search in the subject line.

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

University of Nebraska-Lincoln Computer Science and Engineering Assistant Professor Position

We invite applications for a tenure track faculty position at the rank of Assistant Professor. We are looking for a faculty member who can establish a strong research and teaching program that will strengthen our programs in the area

Professional Opportunities

of Human Computer Interfaces and/or Software Engineering. Candidates must hold an earned doctorate in Computer Science or a closely related discipline by the date of employment.

To apply, visit <http://employment.unl.edu> and complete a Faculty/Administrative application for requisition number 080713. Attach a cover letter, a CV, and statements describing your proposed research and teaching to your application. The cover letter must include names and contact information for at least three references. Review of applications will begin on December 1, 2008, and will continue until the position has been filled. A more detailed advertisement can be viewed at:

<http://cse.unl.edu/search>

The University of Nebraska is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers.

University of Nebraska-Lincoln Department of Computer Science and Engineering Tenure-Track or Tenured Faculty Positions

We invite outstanding individuals with research interests in Embedded Systems and Computer Engineering for tenure-track or tenured faculty positions in the Department of Computer Science and Engineering. We are particularly seeking applications in the general area of embedded systems that complement existing strengths in embedded control systems, embedded software, and real-time systems. Exceptional candidates with research interest in Data Visualization and Computational Science and Engineering are also invited to apply.

Candidates are encouraged to collaborate with faculty in appropriate related areas such as robotics, biomedical engineering, computer science, electrical engineering, materials science, or mechanical engineering. The University seeks individuals with exceptional promise for, or proven record of, research achievement who will excel in teaching undergraduate and graduate courses and take a position of international leadership in defining their field of study.

Candidates will hold a PhD in Computer Engineering, Computer Science, Electrical Engineering, or a closely related discipline. Applicants will find many opportunities for research collaborations both within and outside the Computer Science and Engineering Department. To apply, go to <http://employment.unl.edu> and complete the Faculty/Administrative application 080943. The cover letter should include names of at least three references and statement of teaching and research. Review of applications will begin January 1, 2009, and will continue until the position has been filled. The official advertisement can be viewed at <http://cse.unl.edu/search>.

The University of Nebraska has an active National Science Foundation ADVANCE gender equity program, and is committed to pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers.

University of North Carolina at Charlotte Department of Software and Information Systems DICyDER Center Director

The Department of Software and Information Systems at UNC Charlotte seeks to hire a tenure-track faculty member at the associate level to serve as Director of

the recently established Center for Digital Identity and Cyber Defense Research (DICyDER), <http://www.dicyder.uncc.edu/>. DICyDER's mission is to add value to the university, community, and society through innovative educational programs, research and development in the areas of information integration, security, and privacy. The Director will be responsible for leading a strong research program by communicating research vision, planning and implementing research strategy, facilitating contract acquisition and relationship development, and providing project and group management.

The Department of Software and Information Systems is dedicated to research and education in Software Engineering and Information Technology applications, with emphasis in the areas of Information Integration & Environments and Information Security & Assurance; it offers degrees at the Bachelors, Masters, and Ph.D. levels. Current faculty members have strong research programs with substantial funding from both federal agencies and industrial partners.

Salary will be highly competitive. Applicants must have a Ph.D. in Computer Science, Information Technology, Software Engineering, or a related field, as well as a strong commitment to research and education. For further details please visit <http://www.sis.uncc.edu/>. Application review will start in January 2009.

Applications must be submitted online at <https://jobs.uncc.edu/>. To the application, attach a cover letter, curriculum vitae, a statement of teaching interests, a statement of research interests, copies of three representative scholarly publications, and a list of four references. For questions or additional information, email search-sis@uncc.edu.

Women, minorities and individuals with disabilities are encouraged to apply. UNC Charlotte is an Equal Opportunity/Affirmative Action employer.

University of North Carolina at Charlotte Department of Software and Information Systems Tenure-Track Faculty Positions

The Department of Software and Information Systems at UNC Charlotte invites applicants for multiple tenure-track faculty positions at both the assistant and associate levels. The Department is dedicated to research and education in Software Engineering and Information Technology applications, with emphasis in the areas of Information Integration & Environments and Information Security & Assurance; it offers degrees at the Bachelors, Masters, and Ph.D. levels. Current faculty members have strong research programs with substantial funding from both federal agencies and industrial partners. The department is particularly interested in faculty with research expertise in: Trusted Software Development, Software Engineering, or Modeling & Simulation. Highly qualified candidates in other areas will also be considered.

Salary will be highly competitive. Applicants must have a Ph.D. in Computer Science, Information Technology, Software Engineering, or a related field, as well as a strong commitment to research and education. For further details please visit <http://www.sis.uncc.edu/>. Application review will start in January 2009.

Applications must be submitted online at <https://jobs.uncc.edu/>. To the application, please attach a cover letter, curriculum vitae, a statement of teaching interests, a statement of research interests,

copies of three representative scholarly publications, and a list of four references. For questions or additional information, please email search-sis@uncc.edu.

Women, minorities and individuals with disabilities are encouraged to apply. UNC Charlotte is an Equal Opportunity/Affirmative Action employer.

University of North Carolina at Charlotte College of Computing and Informatics Department of Computer Science Chairperson Position

The Department invites applications for the position of Department Chair. Candidates for the position must have a Ph.D. in Computer Science or a closely related field, a record of scholarly research and publication commensurate with that of Full Professor, evidence of a commitment to excellence in teaching, and strong administrative skills. Computer Science is the largest department within the College of Computing and Informatics, and offers B.S., B.A. and M.S. programs in Computer Science, and a Computer Science track within the IT Ph.D. program. Currently, the Department has 60 Ph.D. students, 130 M.S. students, and more than 30 faculty with areas of expertise which include Visualization and Management of Data, Networking, Robotics, Knowledge Discovery, Game Design, and Computer Vision.

The University is located on a 1000-acre campus in Charlotte and has over 23,000 students, with an enrollment of 35,000 expected by 2020. The Chair is expected to bring energy and enthusiasm to the continued development of the Department and its role in one of the most rapidly growing universities in the country. Applications must be made electronically at <https://jobs.uncc.edu> (position #1912) and must include a CV, a list of 4 references, and statements on research, teaching, and leadership/management style. Informal inquiries can be made to the Search Committee Chair, Lawrence Mays, at lemays@uncc.edu. Review of applications will begin immediately and continue until the position is filled. All inquiries and applications will be treated as confidential.

The University of North Carolina at Charlotte is an EOE/AA employer and an ADVANCE Institution. For additional information, please visit our website at <http://www.cs.uncc.edu>

University of North Texas Department of Computer Science and Engineering Faculty Position

Expertise in Security and Information Assurance, Cyber Trust, or a closely related area.

The Department of Computer Science and Engineering at the University of North Texas invites applications and nominations for one faculty position at the level of Assistant Professor or Associate Professor to start in Fall 2009.

The CSE department offers a full complement of degrees in Computer Science and Computer Engineering. More information about the department can be found at <http://www.cse.unt.edu/>

Qualifications: At the Assistant Professor level, must hold an earned doctoral degree (or must receive the degree prior to the appointment date) in Computer Science, Computer Engineering, or a closely related field. Applicant's record must include high quality publications.

At the Associate Professor level, must have at least 5 years of experience

beyond an earned doctoral degree with a significant record of publications, extramural funding; as well as a record of teaching both undergraduate and graduate level courses.

Duties: Teach at the graduate and/or undergraduate levels in area of disciplinary expertise and in other CSE areas, conduct research, and supervise graduate students.

Rank: Full-time tenure-track position at the rank of Assistant Professor or Associate Professor.

Salary: Commensurate with qualifications and experience.

Starting Date: August 2009

Application Materials: The letter of application must be accompanied by curriculum vitae. Three letters of recommendation must be mailed directly to the following address. Additional materials may be required at a later date.

Send to:

Faculty Search Committee
Department of Computer Science and Engineering

1155 Union Circle #311366

Denton, TX 76203-5017

Or electronically to:

faculty_search@cse.unt.edu

Deadline: To ensure full consideration, all materials must be received by November 1, 2008. The committee will continue to review applications once every month. The committee will accept applications until the position is filled, or the search is closed.

The University of North Texas is an Equal Opportunity/Affirmative Action Employer committed to cultural diversity in its educational programs.

University of Northern Iowa Department of Computer Science Assistant Professor Position

The Department of Computer Science at the University of Northern Iowa invites applications for a tenure-track assistant professor position to begin August 2009. Applicants must hold a Ph.D. in Computer Science or a closely-related discipline. The department seeks candidates able to participate widely in the Computer Science curriculum, with preference given to candidates able to teach courses in Software Engineering or Computer Systems.

Detailed information about the position and the department are available at:

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

Applicants should submit a letter of application, a curriculum vitae, statements of research and teaching philosophies, and the names and contact information of at least three references to:

Eugene Wallingford, Search Chair

Department of Computer Science

University of Northern Iowa

Cedar Falls, Iowa 50614-0507

wallingf@cs.uni.edu

Applications received by January 15, 2009, will be given full consideration.

EOE/AA. Pre-employment background checks are required. UNI is a smoke-free campus.

University of Notre Dame Department of Computer Science and Engineering Research Assistant Professor (Faculty Position)

The Department of Computer Science and Engineering and the Eck Institute for Global Health at the University of Notre Dame invite applications for a Research Assistant Professor to manage our newly funded Bioinformatics Core Facility (BCF). We seek a highly motivated

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Professional Opportunities

Assistant Professor Positions, Department of Computer Science

The Department of Computer Science at the University of Calgary seeks outstanding candidates for several tenure-track positions at the Assistant Professor level. Applicants from database management, software engineering, information security, theory, HCI/Information Visualization, and computer games are of particular interest. Details for each position appear at www.cpsc.ucalgary.ca/career. Applicants must possess a doctorate in Computer Science or a related discipline at the time of appointment, and have strong potential to develop an excellent research record.

The Department is one of Canada's leaders as evidenced by our commitment to excellence in research and teaching. It has an expansive graduate program and extensive state-of-the-art computing facilities. Calgary is a multicultural city that is a fast-growing city in Canada. Calgary enjoys a moderate climate located beside the natural beauty of the Rocky Mountains.

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 area and program, a statement of teaching philosophy, and arrange to have at least three reference letters sent to: Dr. Frank Maurer, Department of Computer Science, University of Calgary, Calgary, Alberta, Canada, T2N 1N4 or via email to: search@cpsc.ucalgary.ca. The applications will be reviewed beginning November 2008 and continue until the positions are filled.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.



UNIVERSITY OF
CALGARY

University of Saskatchewan Department of Computer Science Assistant Professor – Computer Graphics/ Multimedia/Visualization

Applications are invited for a tenure-track position at the Assistant Professor level. Applicants should have a Ph.D. in Computer Science or equivalent. The appointment will commence July 1, 2009.

We are seeking an outstanding entry-level faculty candidate in the areas of Computer Graphics/Multimedia/Visualization, with cognate subdisciplines such as imaging and human computer interaction. This individual will have an opportunity to contribute to our multi-disciplinary initiatives in health, synchrotron science, high performance computing, and digital media.

The friendly, supportive and collegial environment, combined with our excellent research reputation, makes the Department an ideal place to launch and develop a successful academic career. Our Department offers graduate programs at the M.Sc. and Ph.D. levels and has a vibrant undergraduate program.

For further information about the Department, see:

<http://www.cs.usask.ca/content/employment.jsp?user=facultystaff>

Applications will be accepted until February 28, 2009.

University of Texas at Austin Department of Computer Sciences Tenure-Track/Tenured Faculty 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, especially in Computer Architecture. All tenured and 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, to teach both graduate and undergraduate courses, and to supervise graduate students. The department is ranked among the top ten computer science departments in the country. It has 46 tenured and tenure-track faculty members across all areas of computer science. Many of these faculty participate in interdisciplinary programs and centers in the University, including those in Computational and Applied Mathematics, Computational Biology, and Neuroscience.

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, Freescale Semiconductor, Advanced Micro Devices, National Instruments, AT&T, Intel and Samsung. For more information please see the department web page: <http://www.cs.utexas.edu/>

The department prefers to receive applications online, beginning November 15, 2008. To submit yours, please visit:

<http://services.cs.utexas.edu/recruit/faculty/>

If you do not have internet access, 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,
Department of Computer Sciences,
The University of Texas at Austin,
1 University Station C0500,
Austin, Texas 78712-0233, USA,

Inquiries about your application may be directed to faculty-search@cs.utexas.edu. For full consideration of your application, please apply by January 15, 2009.

Women and minority candidates are especially encouraged to apply. The University of Texas is an Equal Opportunity Employer.

University of Texas at Brownsville Computer and Information Sciences Assistant/Research-Assistant Professor

Scope: The Assistant/Research-Assistant Professor will teach courses and advise students in the degrees of Computer Science and Computer Information Systems. The successful candidate will collaborate with colleagues to develop multidisciplinary research initiatives. Positions are contingent upon funding.

Required Qualifications: Ph.D. in Computer Science or a closely related discipline is required. The successful candidate is expected to have a strong commitment to excellence in teaching a broad range of courses in the area, and a demonstrable research capability that will enable external funding, independent research and publishing in leading scholarly journals. Expertise in all areas of computer science is welcome.

Preferred Qualifications: A well defined research agenda with a positive synergistic impact on current faculty, track record of publications, industry experience, teaching experience, and training or experience in one of the following areas: game programming, robotics, embedded systems, networking.

Closing Date: Applications will be reviewed upon receipt and continue until position is filled.

Salary: Competitive and commensurate with experience and qualifications.

Please apply at:

http://www.utbtsc.edu/human_resources

University of Texas at Dallas Department of Computer Science Department Head Position

The Erik Jonsson School of Engineering and Computer Science at the University of Texas at Dallas (UTD) invite nominations and applications for the position of Head of the Department of Computer Science. Candidates for the position must have a Ph.D. degree in Computer Science or a related field.

Qualified candidates must have a demonstrated dedication to undergraduate and graduate education, a strong record of scholarly and professional achievements, leadership and organizational skills and overall qualifications commensurate with the rank of full professor in the Department. The selected candidate will be responsible for recruiting new faculty in the Department, curriculum development and strengthening the educational and research programs in both traditional and interdisciplinary areas, as well as areas capitalizing on existing strengths and excellence of the Jonsson School of Engineering.

One of the largest departments of its kind in the country, UTD's Department of Computer Science features an internationally recognized faculty, nearly 1,500 students and a 150,000-square-foot building with modern classrooms and state-of-the-art laboratories. Areas of research include cybersecurity, networking, embedded software, programming languages and systems, human language technology, software engineering, intelligent systems and theory. CS faculty and students publish more than 350 research papers annually. The CS

PhD scientist with an interest in building collaborative relationships with a diverse user base, and developing from these relationships independent research opportunities. This is an excellent chance to develop a cutting edge bioinformatics research program while helping provide state-of-the-art support to campus.

The successful candidate will oversee core lab functions and technical staff, while interfacing with a sister Genomics Core Facility on campus. Computational support will be provided for microarray experiments, 'next gen' sequencing projects, genotyping, population genomics studies and related projects. This researcher will work closely with the director of the BCF to develop services, to facilitate faculty research, and to identify opportunities for sustainable facility growth. Salary and rank are competitive, commensurate with experience and skills (starting range 70-80K, plus benefits). Significant resources are available, including access to university scientific computing and competitive intramural startup funding for independent research.

Qualifications:

A Ph.D. in bioinformatics, computer science, computational biology, statistics or related field is required. Some experience in high-dimensional gene expression studies and microarray data analysis will be ideal. Familiarity with basic bioinformatics tools for supported areas is required and any additional data analysis experience is a plus, especially in the area of proteomics.

** Please do not apply online **

To apply: please forward a cover letter, CV/resume, statement of research interests (1-2 pages) and names of 3 references in pdf files to:

Scott Emrich (bioinformatics@cse.nd.edu)

Department of Computer Science and Engineering
University of Notre Dame
Notre Dame, IN 46556-0369

University of Puget Sound Department of Mathematics & Computer Science Assistant or Associate Professor of Computer Science

Full-time, tenure-line position; begins Fall Term 2009. Teach upper level courses, along with introductory computer science courses. Preference will be given to candidates who can teach courses in graphics, databases and artificial intelligence. Ph.D. (ABD considered) in computer science or a closely related field, and a commitment to undergraduate teaching and liberal arts education. Preference will be given to candidates whose research interests can incorporate or generate undergraduate research projects. Applications in the form of a curriculum vitae, a teaching statement, and three letters of reference, at least one of which speaks to the candidate's promise as a teacher, may be sent by 1/15/09 to:

Computer Science Search - 997
University of Puget Sound
1500 North Warner #1007
Tacoma, WA 98416-1007
www.ups.edu/employment
EOE/AA

Professional Opportunities

Department includes multiple NSF Career Award winners, and is one of only a few departments in the U.S. offering B.S., M.S. and Ph.D. degrees in software engineering.

The University of Texas at Dallas is situated in Richardson, one of the most attractive suburbs of the Dallas metropolitan area with several hundred high-tech companies within a few miles of the campus, including Texas Instruments, Lockheed Martin, Raytheon, Nortel Networks, Alcatel, Ericsson, Hewlett-Packard, Samsung, Fujitsu, Cisco Systems, EDS, Zyve, and Intervice. Opportunities for joint university-industry research projects are excellent. The Erik Jonsson School is experiencing a very rapid growth as part of a \$300 million program of funding from public and private sources. As a result, the school is expanding its existing programs, recruiting outstanding faculty and Ph.D. students, increasing funded research, and establishing new programs. A \$100 million state-of-the art building for interdisciplinary research in science and engineering was recently inaugurated.

For more information about the Jonsson School of Engineering visit <http://www.ecs.utdallas.edu> or send e-mail to Dr. Bhavani Thuraisingham, Chair (bxt043000@utdallas.edu). The search committee will begin evaluating applications as soon as they are received and will continue until the position is filled.

Applicants should mail their resume with a list of at least five academic or professional references to:

Academic Search # 7093
The University of Texas at Dallas
800 W. Campbell Rd., AD 42
Richardson, TX 75080-3021

Indication of gender and ethnic origin for affirmative action statistical purposes is requested as part of the application process but is not required for consideration. The University of Texas at Dallas is an Equal Opportunity Affirmative Action employer and strongly encourages applications from candidates who would enhance the diversity of the University's faculty and administration.

University of Toronto Department of Computer Science Assistant Professor Position

The Department of Computer Science, University of Toronto, invites applications for a tenure-track appointment at the rank of Assistant Professor, to begin July 1, 2009.

We are seeking applicants whose interdisciplinary research expands traditional boundaries of computer science. Exceptional applicants in all areas of computer science meeting this criterion will be considered. Particular emphasis will be placed on such applicants in human-computer interaction (HCI) and closely-related areas.

The University of Toronto is an international leader in computer science research and education, and the department enjoys strong interdisciplinary ties to other units within the University.

Candidates should have (or be about to receive) a Ph.D. in computer science or a related field. They must demonstrate an ability to pursue innovative research at the highest level, and a strong commitment to teaching.

Salaries are competitive with our North American peers and will be determined according to the successful applicant's experience and qualifications. Toronto is a vibrant and cosmopolitan city, one of the most desirable in the world in which to work and live. It is also a major centre

for advanced computer technologies; the department has strong interaction with the computer industry.

To apply for this position, please visit <http://recruit.cs.toronto.edu/> and follow the instructions.

The review of applications will commence on December 15, 2008. To ensure full consideration, applications should be received by January 15, 2009.

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.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

University of Utah School of Computing Tenure-Track Faculty Position in Computer Graphics

The University of Utah's School of Computing is seeking to hire a tenure-track faculty member in computer graphics at all levels. The state of Utah has funded a new emphasis on Digital Media and we concurrently have two additional open positions at the senior level: one in the School of Computing in animation, computer games, computational photography, or other related area and a second in Fine Arts with an emphasis on Digital Media. Currently, computer graphics research has strong programs in modeling/manufacturing, animation, perception, and scientific visualization. We wish to build upon these successful areas with a dynamic researcher seeking to develop a strong synergistic program in the computer graphics area, especially areas related to Digital Media. The School of Computing offers a specialized M.S. and Ph.D. Computing Degree graduate track in Computer Graphics and Visualization and a BS/MS program in Entertainment Arts and Engineering.

Applicants should have earned a Ph.D. in Computer Science or a closely related field. The University of Utah is located in Salt Lake City, the hub of a large metropolitan area with excellent cultural facilities and unsurpassed opportunities for outdoor recreation only a few minutes' drive away. Additional information about the school can be found at www.cs.utah.edu. Please send curriculum vitae, a research goals statement, a teaching goals statement, and names and addresses of at least four references to:

Faculty Recruiting Committee
c/o Mr. Chris Coleman
coleman@cs.utah.edu
Via email in PDF format

We will begin reviewing applications on December 15, 2008. To be assured full consideration, applications should be received by January 15, 2009.

The University of Utah is an Equal Opportunity, Affirmative Action

Employer and encourages nominations and applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and possess a strong commitment to improving access to higher education for historically underrepresented students.

University of Utah School of Computing Tenure Track Faculty Position in Robotics

The University of Utah's School of Computing is seeking to hire a tenure-track faculty member in the application of machine learning to robotics. The School of Computing has jointly established with the Department of Mechanical Engineering the Robotics Track, which is the second graduate program of study in robotics in the US offering M.S. and Ph.D. degrees. Utah is world-famous for the robot systems produced by its spinoff company Sarcos, including the Utah/MIT Dextrous Hand, the Sarcos Dextrous Arm, and various humanoid robots. Recently the University of Utah was awarded an NSF IGERT grant on the theme Biocentric Robotics. This robotics faculty position builds upon the IGERT award and complements Robotics Track faculty in the Department of Mechanical Engineering.

Applicants should have earned a Ph.D. in Computer Science or a closely related field. We seek dynamic researchers with exceptional research backgrounds who wish to build a strong research program while complementing our current efforts, and are committed to teaching excellence in robotics and related areas of computer science. Please send curriculum vitae, a research goals statement, a teaching goals statement, and names and addresses of at least four references to:

Faculty Recruiting Committee
c/o Mr. Chris Coleman
coleman@cs.utah.edu
Via email in PDF format

Applications will be evaluated as received. To be assured of full consideration, applications should be received by January 15, 2009.

The University of Utah is located in Salt Lake City, the hub of a large metropolitan area with excellent cultural facilities and unsurpassed opportunities for outdoor recreation only a few minutes' drive away. Additional information about the school can be found at www.cs.utah.edu.

The University of Utah is an Equal Opportunity, Affirmative Action Employer and encourages nominations and applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees.

The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and possess a strong commitment to improving access to higher education for historically underrepresented students.

University of Vermont College of Engineering and Mathematical Sciences Faculty Position in Intelligent Systems

The University of Vermont College of Engineering and Mathematical Sciences (UVM CEMS) is hiring up to five tenure-track faculty in Complex Systems during the 2009-10 academic year, with a key hire in Intelligent Systems being made in the Department of Computer Science at the Assistant Professor level. See <http://www.cs.uvm.edu/hiring> for more information and contact addresses.

The CS Department offers Master's and Ph.D. programs, and three undergraduate programs. Current research includes data mining, distributed systems, and evolutionary computation. Preference will be given to those candidates who best complement the existing CS research

strengths and can contribute to the CEMS initiative in Complex Systems (www.uvm.edu/complexsystems).

Candidates for the position should have an earned doctorate in an appropriate discipline, a proven record of scholarly activities and the ability to teach multiple courses. Successful candidates will be expected to make significant and balanced contributions to both teaching and research, including the development of a nationally-respected and externally funded research program.

Please upload your application at the website <https://www.uvmjobs.com> (using Job Requisition Number 032529) with CV, a statement of teaching experience and interests, a statement of research interests and aspirations. Please also arrange at least three letters of reference sent directly to the search committee. Complete applications received by January 16, 2009 will be fully considered.

UVM is an AAEO employer and encourages applications from women and members of minority groups.

University of Washington Computer Science & Engineering Tenure-Track, Research, and Teaching Faculty

The University of Washington's Department of Computer Science & Engineering has one or more open positions in a wide variety of technical areas in both Computer Science and Computer Engineering, and at all professional levels. A moderate teaching load allows time for quality research and close involvement with students. Our space in the Paul G. Allen Center for Computer Science & Engineering provides opportunities for new projects and initiatives. The Seattle area is particularly attractive given the presence of significant industrial research laboratories as well as a vibrant technology-driven entrepreneurial community that further enhances the intellectual atmosphere. Information about the department can be found on the web at:

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

We welcome applicants in all research areas in Computer Science and Computer Engineering including both core and inter-disciplinary areas. Areas of interest include (but are not limited to) security, machine learning, theory, and systems. We expect candidates to have a strong commitment both to research and to teaching. The department is primarily seeking individuals at the tenure-track Assistant Professor rank; however, under unusual circumstances and commensurate with the qualifications of the individual, appointments may be made at the rank of Associate Professor or Professor. We may also be seeking non-tenured research faculty at Assistant, Associate and Professor levels, postdoctoral researchers (Research Associates) and part-time and full-time annual lecturers and Sr. Lecturers. Applicants for both tenure-track and research positions must have earned a doctorate by the date of appointment; those applying for lecturer positions must have earned at least a Master's degree. Research Associates, Lecturers and Sr. Lecturers will be hired on an annual or multi-annual appointment. All University of Washington faculty engage in teaching, research and service.

Please apply online at <http://www.cs.washington.edu/news/jobs.html> with a letter of application, a complete curriculum vitae, statement of research and teaching interests, and the names of

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Professional Opportunities

four references. Applications received by February 1, 2009 will be given priority consideration. Open positions are contingent on funding.

The University of Washington was awarded an Alfred P. Sloan Award for Faculty Career Flexibility in 2006. In addition, the University of Washington is a recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers. We are building a culturally diverse faculty and encourage applications from women and minority candidates. The University of Washington is an affirmative action, equal opportunity employer.

University of Washington Computer Science & Engineering Senior Faculty Position in eScience

With dedicated financial support from the state, the University of Washington has recently established an "eScience Institute". The overall objective of the Institute is to help position the University at the forefront of research both in modern computational science techniques and technologies (sensor networks, data management, data analysis, etc.) and in the fields that depend upon these techniques and technologies. We are searching for a faculty member who has made outstanding contributions to eScience methodology and has advanced the forefront in one of the application domains either through his/her own work or through collaboration with domain scientists. An ideal candidate would be qualified for a joint appointment in a "methodology department" (Applied Mathematics, Computer Science & Engineering, Mathematics, or Statistics) and in an "application department" (Astronomy, Biology, Genome Sciences, Oceanography ...). We anticipate a hire at the tenured level rapidly providing leadership, although assuming the "Directorship" of the eScience Institute is not a necessity.

Please submit your application through the Web site:

<http://escience.washington.edu/apply/>

Priority will be given to applications received by January 2009, although the search will continue till the position is filled.

Applicants must have earned a doctorate by the date of appointment. Appointments at the Assistant Professor, Associate Professor and Professor ranks will be considered. All University of Washington faculty engage in teaching, research, and service.

UW is an affirmative action, equal opportunity employer. We have a culturally diverse faculty and staff and strongly encourage applications from women, minorities, individuals with disabilities and covered veterans. Position contingent on budgetary approval.

University of Washington Computer Science & Engineering and Electrical Engineering Tenure-Track and Research Faculty

The University of Washington's Department of Computer Science & Engineering and Department of Electrical Engineering have jointly formed a new UW Experimental Computer Engineering Lab (ExCEL). In support of this effort, the College of Engineering has committed to hiring several new faculty over the forthcoming years. All positions will be dual appointments in both departments (with precise percentages as appropriate for the candidate). This year, we have two

open positions, and encourage exceptional candidates in computer engineering, at tenure-track Assistant Professor, Associate Professor, or Professor, or Research Assistant Professor, Research Associate Professor, or Research Professor to apply. A moderate teaching and service load allows time for quality research and close involvement with students. The CSE and EE departments are co-located on campus, enabling cross department collaborations and initiatives. The Seattle area is particularly attractive given the presence of significant industrial research laboratories, a vibrant technology-driven entrepreneurial community, and spectacular natural beauty. Information about ExCEL can be found at:

<http://www.excel.washington.edu>

We welcome applications in all computer engineering areas including but not exclusively: atomics scale devices & nanotechnology, implantable and biologically-interfaced devices, synthetic molecular engineering, VLSI, embedded systems, sensor systems, parallel computing, network systems, and technology for the developing world. We expect candidates to have a strong commitment both to research and teaching. ExCEL is seeking individuals at all career levels, with appointments commensurate with the candidate's qualifications and experience. Applicants for both tenure-track and research positions must have earned a PhD by the date of appointment.

Please apply online at <http://www.excel.washington.edu/jobs.html> with a letter of application, a complete curriculum vitae, statement of research and teaching interests, and the names of at least four references. Applications received by January 31, 2009 will be given priority consideration. Open positions are contingent on funding.

The University of Washington was awarded an Alfred P. Sloan Award for Faculty Career Flexibility in 2006. In addition, the University of Washington is a recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of woman in academic science and engineering careers. We are building a culturally diverse faculty and encourage applications from women and minority candidates. The University of Washington is an affirmative action, equal opportunity employer.

Vanderbilt University Department of EECS Tenure-Track Faculty Positions

The Electrical Engineering and Computer Science (EECS) department at Vanderbilt University is seeking candidates for potential faculty appointments in CS and EE. Appointments at all ranks will be considered, with preference for appointments at the assistant professor level.

Search areas of emphasis in CS are software engineering, graphics/human-computer interactions, artificial intelligence, and web technologies. Search areas of emphasis in electrical engineering are nanoelectronics/photronics, and signal/image processing. In CS and EE, we seek opportunities to add to department capabilities in high performance computing/computational science. A Ph.D. in Computer Science, Computer Engineering, Electrical Engineering, or a closely related field is required, as is experience commensurate with the level of appointment sought.

The EECS Department has 32 full-time faculty, 225 undergraduate students, and 170 graduate students. Research awards average ~ \$600k per tenure/tenure-track faculty member.

For more information, please visit our web site:

<http://eecs.vuse.vanderbilt.edu>

Applications consisting of a cover letter specifying the areas of particular interest in EE or CS, a statement of planned research activity and teaching interests, a complete curriculum vitae, and the addresses of four references should be sent as attachments to Professor Daniel M. Fleetwood, Chair, EECS Department, at dan.fleetwood@vanderbilt.edu.

Various Institutions

The Institute for Information Infrastructure Protection (I3P)
Postdoctoral Fellows

The Institute for Information Infrastructure Protection (I3P) seeks to advance its national research agenda through the postdoctoral fellowship program. The I3P fellowship program is building a nationwide cadre of investigators focused on critical research challenges and provides expanded research opportunities at I3P Consortium member institutions. Fellows will perform their research in residence at an I3P Consortium member institution.

For more information, and to apply, please visit:

<https://www.thei3p.org/fellowships/callforproposals.html>

CAPP Workshop Speakers



CRA-W recently held its fourth Advanced Career Mentoring (CAPP) Workshop for Associate Professors in research, Associate Professors in primarily teaching institutions, and mid-career industry/government lab researchers. Among the speakers were: (l to r) Ellen Walker (Hiram College); CRA board member Laura Haas (IBM Almaden Research Center); and former CRA board member Janie Irwin (Penn State).

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