

Johns Hopkins Computer Hopkins Science

Powering **Discovery and Innovation**
in Engineering, Science, and Society





Our researchers are developing algorithms for real-time computer vision that are fueling a revolution in technology for surgical training, medical imaging, and diagnostics.

RESEARCH AREAS

- Theory and Programming Languages
- Systems
- Computational Biology and Medicine
- Information Security
- Language and Speech Processing
- Machine Learning and Data Intensive Computing
- Robotics, Vision and Graphics
- Human-Computer Interaction Artificial Intelligence

ASSOCIATED RESEARCH CENTERS AND INSTITUTES

- Center for Computational Biology (CCB)
- Center for Language and Speech Processing (CLSP)
- Human Language Technology Center of Excellence (HLTCE)
- Institute For Assured Autonomy (IAA)
- Institute for Data Intensive Engineering and Science (IDIES)
- Johns Hopkins Information Security Institute (ISI)
- Laboratory for Computational Sensing and Robotics (LCSR)
- Malone Center for Engineering in Healthcare (MCEH)
- Mathematical Institute for Data Science (MINDS)

Diverse, Collaborative, Research-Focused

The mission of the **Department of Computer Science** is to enhance discovery and innovation in engineering, science, and society through research and education. Our research is intensely collaborative and interdisciplinary. Our faculty members' expertise is broad, encompassing core computer science and a range of application areas. As leaders of major university-wide computing-intensive initiatives, they contribute to the advancement of knowledge across disciplines and are making an impact on the world in areas ranging from medical robotics to cybersecurity. Equally important is the preparation of skilled, visionary graduates who are advancing knowledge and fulfilling the promise of today's revolution in computation and artificial intelligence through a diverse and inclusive community.

The immersive Master's in Security Informatics (MSSI), offered through the JHU Information Security Institute, provides unparalleled research and professional opportunities in this rapidly expanding field.





Our graduates are actively recruited by top companies, including Google, Apple, Microsoft, Amazon, and Meta, and assume leadership roles in the public sector and academia.

Our Work

Computer science research at Johns Hopkins is advancing computing technology, enabling new modes of thought, and transforming society. Our faculty conduct innovative, collaborative research aimed at solving large and complex interdisciplinary problems that draw upon the university's renowned strengths in areas including robotics, speech and language, medicine, and public health. Researchers partner with colleagues in engineering disciplines, as well as with investigators in Johns Hopkins Krieger School of Arts and Sciences, Bloomberg School of Public Health, School of Medicine, and Applied Physics Laboratory.

Preparing the Next Generation of Engineering Leaders

Through a broad array of undergraduate and graduate offerings, we are preparing computer scientists who have the deep skills sets and desire to innovate that keep them at the forefront of the latest technologies and advances in this rapidly changing field . Bachelor degrees and minor options for students from across the university foster an interdisciplinary community of inquiry within the department. Our students engage with faculty in conducting world-class research, and our flexible curriculum enables individualized, specialized training that prepares students for a broad range of career opportunities-in industry, the public sector, academia, and entrepreneurship.

Our researchers are sharing their expertise in information security by advising Congress, the Pentagon, and industry on issues ranging from election tampering to national defense to healthcare data privacy.





We are building scalable data sets and systems that enable scientists and engineers, in all disciplines, to advance discovery through the exploration, mining, and analysis of big data.

Our students go on to attend some of the nation's top graduate programs and pursue careers with industry leaders, as well as government agencies, and national security organizations.

A Sampling of Industries Hiring Our Graduates

Management Consulting
Internet and E-commerce
Computational Finance
Energy
Artificial Intelligence and Machine Learning
Enterprise Software

Healthcare Technology Development
Data Science
Computer Security
Software Development
Video Game Production
Microsurgery
Bioinformatics

Hopkins Engineering by the numbers



9

departments



25+

centers and institutes



200+

faculty



7,000+

total students



full time
programs

12 bachelor's
19 master's
10 doctoral



22+

part-time/
online master's
degrees



26+

graduate certificates



\$193M

federal research funding



40,000+

living alumni



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WHITING SCHOOL
of ENGINEERING

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