

# Computer Science

Having joined the University of Rochester's Edmund A. Hajim School of Engineering & Applied Sciences in 2009, the Department of Computer Science provides an academic program of unusual breadth. It offers BS, MS, and PhD options, as well as a flexible BA degree, which can be customized to support students interested in the intersection of computer science with other disciplines, such as linguistics or biology.

Students delve into cuttingedge research in artificial intelligence, computer systems, human-computer interaction, web programming, and the theory of computation. Most classes include hands-on experience in building real-world applications, ranging from web apps to operating systems.

Classes are just the start of students' education. Undergraduate majors become part of research teams with faculty and graduate students and regularly coauthor research published in leading journals "Students graduate knowing the necessity of testing and refining solutions to problems. They value both abstraction and attention to detail, and they reframe ill-posed problems into well-defined ones. They become master problem solvers, critical thinkers, and idea innovators." —Professor and Chair of the Department of Computer Science Henry Kautz

and conferences. Faculty and staff help computer science majors find paid summer internships at places such as Google, Intel, and Amazon, where students both exercise and expand their expertise and skills.

Students also engage in cross-disciplinary work with the Departments of Brain and Cognitive Sciences, Electrical and Computer Engineering, and Biostatistics; Digital Media Studies; the University of Rochester Medical Center; and the William E. Simon School of Business.

# Leading the Way

Faculty and students also use computer science to explore the potential of new technologies and concepts using data science, which allows researchers to mine information effectively and efficiently. Rochester is a leader in this field and is using data science to tackle issues such as personalized medicine, environmental sustainability, and political campaigns.

# Points of Pride Department Growth

Over the past three years, the number of computer science undergraduate majors has tripled. The department has created new courses, including data mining, web and mobile programming, and human-computer interaction, that appeal to students from a broad

"The department's high-impact research, collegial atmosphere, technological resources, and professional connections gave me opportunities I wouldn't have had elsewhere. I am excited for the future."

# Adam Sadilek '10 (MS), '12 (PhD)

Adam was one of Rochester's computer scientists who created GermTracker, a web application that analyzes social media to predict the spread of infectious diseases. He left Rochester in the spring of 2013 to join Google.



spectrum of disciplines. Each year, a quarter of students in Arts, Sciences & Engineering take a computer science course.

### **Accomplished Alumni**

Graduates have gone on to outstanding careers at IBM, Google, Microsoft, Apple, Java, Intel, and many other industry leaders. A third of the department's PhD alumni are in academia and hold faculty positions at such esteemed places as Boston University, Carnegie Mellon University, Colgate University, and other peer institutions around the world.

### **Distinguished Faculty**

Faculty have been honored as fellows of the American Association for the Advancement of Science, the Association for Computing Machinery, and other professional organizations for fundamental contributions in distributed systems, programming languages, computer vision, and knowledge representation and reasoning.

Despite increasing national competition, computer science faculty and graduate students receive research support from the National Science Foundation, the Defense Advanced Research Projects Administration, and other agencies. This support has risen to \$2.9 million per year. Faculty members have also won research partnership awards from leading high-technology companies. 

# How You Can Help

Gifts help the department sustain and grow its commitment to academic excellence. Consider the following giving opportunities:

### Students

Supporting students is one of the highest priorities at Rochester. Create a graduate fellowship, which helps attract the most qualified students and strengthens the department overall. Funding that supports undergraduate participation in prestigious national competitions also enriches the academic experience.

## Faculty

Endowed positions help attract and retain faculty and staff of exceptional talent and are among the most prestigious and visible honors at the University. Investing in an endowed professorship or chaired professorship ensures that students are served by world-class faculty. Gifts that support faculty research also help advance knowledge and teaching acumen.

#### **Learning Environment**

Having state-of-the-art equipment, labs, and classroom space are essential in this field. Naming opportunities exist and provide resources to upgrade space used for education and research.

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### For more information on giving opportunities, please contact **Eric Brandt** Executive Director for Advancement (585) 273-5901, ebrandt@alumni.rochester.edu