



An Overview of University of Washington Computer Science & Engineering



Established in 1967, Computer Science & Engineering at the University of Washington has consistently ranked as one of the top ten programs in the nation. We produce high-impact research; we educate highly effective and successful undergraduates and graduate students; and we engage broadly across the campus, within the region, nationally, and internationally.

Computer science and computer engineering are changing the world. UW CSE is helping to drive this revolution.

Technical Leadership: Creating Breakthroughs

For decades, our faculty and students have conducted significant research advancing the state of the art across the principal areas of the field. We have nearly 50 faculty members and have made important hires in the past few years to increase our breadth and depth. UW CSE faculty are internationally known for their contributions in key technical areas including:

- Artificial intelligence, robotics, and machine learning
- Operating systems, networks, and distributed systems
- Computer graphics, computer vision, and animation
- Human-computer interaction and ubiquitous computing
- Security and privacy
- Theory of computation
- Programming systems and programming languages
- Computer architecture
- Embedded systems, VLSI, and reconfigurable computing
- Databases, information retrieval, and intelligent Internet systems
- Software engineering
- Computational biology and synthetic biology
- Computational neuroscience and brain-machine interfaces
- Accessibility and computing for disabilities
- Computing for health care and for the developing world

Undergraduate Education: Creating Leaders

The Washington State Employment Security Department projects that 4 of the 5 fastest-growing occupations statewide between now and 2016 will be computer science occupations. UW CSE has more than 500 majors in our undergraduate programs and educates more than 2,500 students each year in our introductory courses. Our Bachelors graduates are in great demand for their technical and collaborative skills.

- We are among the top suppliers of students in the nation to leading high-tech firms such as Microsoft, Amazon.com, and Google. We are the leading supplier to many regional firms.



UW CSE is housed in the Paul G. Allen Center for Computer Science & Engineering, made possible by gifts from Microsoft co-founder Paul Allen and more than 200 other CSE friends and alumni.

- UW CSE students have received the Rhodes Scholarship, Goldwater Scholarship, Marshall Scholarship, Gates Cambridge Scholarship, and Google Anita Borg Scholarship.
- Our students have dominated the University Medals and Dean's Medals – 17 medal winners in the past decade.
- In the past decade, 33 of our students have been recognized in the Computing Research Association Outstanding Undergraduate Research Award competition – the most of any program in the nation.
- UW CSE faculty have received five UW Distinguished Teaching Awards, and we received the inaugural UW Brotman Award for Instructional Excellence.

Graduate Education: Creating Innovators

UW CSE has roughly 165 full-time graduate students, plus 135 students in a part-time, evening/distance, industry-focused Professional Master's Program, and more than 20 postdoctoral fellows. We pride ourselves on active mentoring, and on the success of our students.



UW CSE's research, education, and outreach activities are regularly featured in the popular press, such as the recent *NY Times* article "Computer Science Takes Steps to Bring Women to the Fold"

- Our Ph.D. alums have received offers from essentially every top academic program and industrial research laboratory, and hold a wide variety of leadership positions in academia and industry.
- UW CSE students have been recognized multiple times in the ACM Doctoral Dissertation Award competition.
- Our students are among the most successful in the nation in competing for major fellowships from sources such as the National Science Foundation, Microsoft, Google, Intel, and IBM.

Entrepreneurship: Creating a Vibrant Region

Our faculty and graduates have been instrumental in technology advancement and technology transfer in the region.

- More than a dozen new companies have been spawned by UW CSE in the past decade, attracting approximately \$250 million in venture financing. A recent success was Farecast, acquired by Microsoft and re-introduced as Bing Travel. Impinj has recently filed to IPO.
- Our alumni have created a number of successful companies in the region, including Visio, Aldus, and Digital Research.
- UW CSE research projects have had enormous impact – projects such as WebCrawler (the first full-text Web search engine), MetaCrawler (the first meta-search engine), Simultaneous Multithreading (a processor technology used by Intel, IBM, and others), and Photosynth (a joint project with Microsoft to organize and view photo collections).
- We have close relationships throughout the Pacific Northwest's technology and venture capital communities. Particularly strong research partners include Microsoft, Google Seattle, Intel, Amazon.com, Adobe Advanced Technology Labs, and UW's world-class Medical School and top programs in Biology, Biochemistry, Genome Sciences, Statistics, Oceanography, Applied Mathematics, EE, and the Information School.

On the Web: <http://www.cs.washington.edu/>

