

COMPUTER SCIENCE

snowbird





COMPUTER SCIENCE

The **DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE (EECS)** has a well-earned reputation for excellence exemplified by its internationally renowned faculty, advanced research capabilities, and the considerable resources of a great university.

In close collaboration across disciplines, faculty and students transform bold new ideas into groundbreaking results in all aspects of computer science: **operating systems, compilers, databases, networking, distributed systems, parallel systems, image-based modeling and rendering, intelligent systems for problem-solving and education, computer graphics, and theoretical computer science.** The ever-evolving curriculum seamlessly spans the broad disciplines of electrical engineering and computer science.

UNDERGRADUATE STUDY

PROGRAMS OF STUDY

- \ **Bachelor of science in computer science**
- \ **Bachelor of arts in computing and information systems through the Weinberg College of Arts and Sciences**
- \ **Combined BS/MS option through which students can earn both degrees simultaneously**

EXAMPLE COURSES

- EECS 212 *Mathematical Foundations of Computer Science*
- EECS 325 *Artificial Intelligence Programming*
- EECS 330 *Human-computer Interaction*
- EECS 370 *Computer Game Design*
- EECS 395 *Human-centered Product Design*

OUTSIDE THE CLASSROOM

UNDERGRADUATE RESEARCH \ Working on exciting research projects alongside graduate students and faculty members helps build a solid foundation of experience.

JOBS AND INTERNSHIPS \ The EECS Jobs Board points students and alumni to new tech-related opportunities through the McCormickConnect database.

STUDENT MENTORING PROGRAM \ Meet with an upperclassman once a month to learn more about relevant curricula, programs, undergraduate research, and internship opportunities.

HACKNORTHWESTERN \ This student initiative fosters creativity, entrepreneurship, and hacker spirit.

WOMEN IN COMPUTING \ This student-led group creates an academic and social network that connects and supports female undergraduates interested in computer science and related fields.

GRADUATE STUDY

PROGRAMS OF STUDY

- \ **Master of science in computer science**
- \ **PhD in computer science**

RESEARCH AREAS

Systems and networking \ Theory \ Artificial intelligence and machine learning \ Human-computer interaction \ Graphics \ Robotics \ CS+X



“COMPUTER SCIENCE TEACHES YOU TO BOTH SOLVE PROBLEMS THAT SEEM IMPOSSIBLE AND FIGURE OUT IF THEY ACTUALLY ARE IMPOSSIBLE. THIS TYPE OF PRACTICAL THINKING HELPS COMPUTER SCIENTISTS TO PLAY ESSENTIAL ROLES IN ALL FIELDS OF STUDY.”

ANDREW KAHN \ COMPUTER SCIENCE

CAREERS IN COMPUTER SCIENCE

WHAT'S NEXT?

The computer science industry continues to experience exponential growth. Computer and mathematical occupations are projected to have added 778,300 new jobs by 2020. Computer science graduates at Northwestern are in demand by employers in nearly every industry, including software and IT, manufacturing and energy, financial services, and government and nonprofits.

The wide range of career options include:

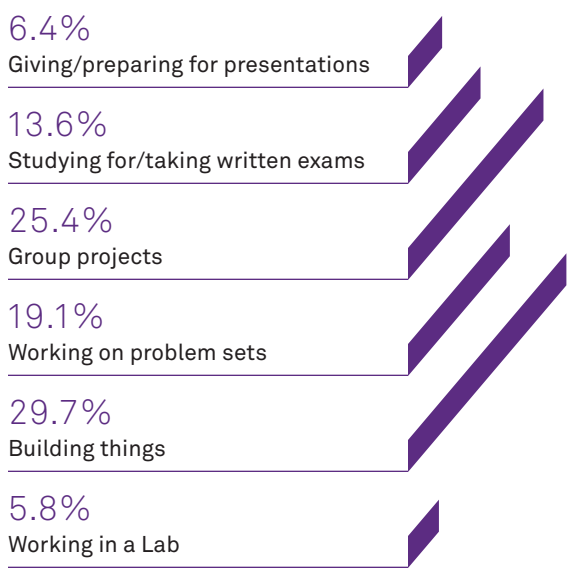
- \ Software development and engineering
- \ Information technology consulting
- \ Database and systems analysis
- \ Data analytics
- \ Financial risk analysis and trading
- \ Game development

RECENT GRADUATE PLACEMENTS

Software design engineer at **Microsoft** \ Software engineer at **Google** \ Software developer at **General Motors** \ Technology analyst at **Barclays** \ Engineer at **Medium** \ Software developer at **Twitter** \ Net developer at **Adage Technologies** \ Software engineer at **eSpark Learning** \ Software developer at **Epic Systems** \ User interface developer at **Ford Motor Company** \ Software engineer at **Boeing**

HOW YOU SPEND YOUR TIME IN THIS PROGRAM

BASED ON A SURVEY OF CURRENT STUDENTS.



Nearly half of this major's coursework includes computer programming.

ENVISION WHAT'S POSSIBLE

NORTHWESTERN ENGINEERING STUDENTS
CONSTANTLY EXPLORE NEW PATHWAYS
IN COMPUTER SCIENCE. IMAGINE YOURSELF:



- \ Creating your own app
- \ Designing software that will change an industry
- \ Learning the latest developments in operating systems, databases, networking, and computer graphics
- \ Working in one of the fastest growing fields in the country with broad global economic and social impact
- \ Graduating with deep technical knowledge, entrepreneurial and leadership skills, and design thinking to help you maximize your impact wherever you go



FIND YOUR DIRECTION HERE

Northwestern | McCORMICK SCHOOL OF
ENGINEERING

www.eecs.northwestern.edu