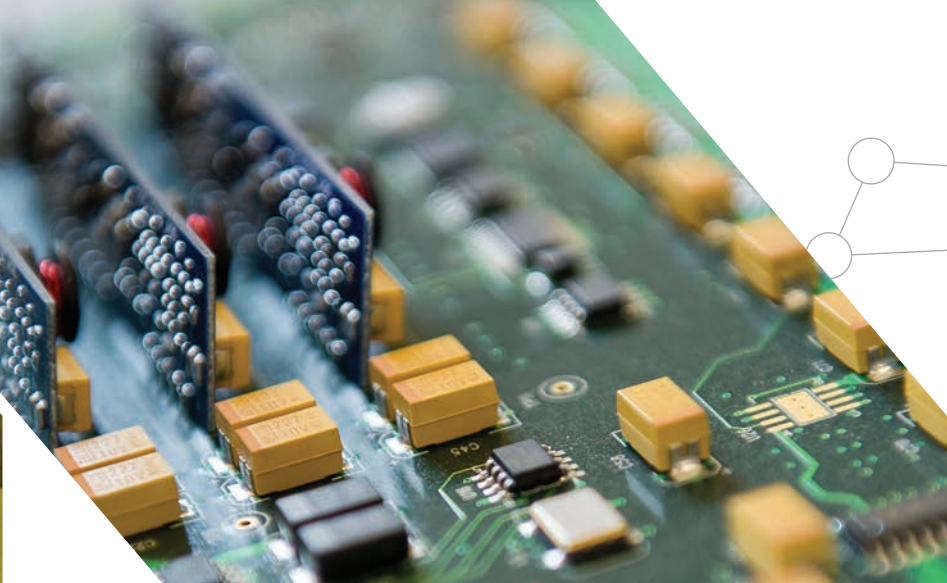


COMPUTER ENGINEERING





COMPUTER ENGINEERING

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 engineering, including **digital logic, electronic circuits, computer architecture, robotics, operating systems, and parallel computing**. 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 engineering

Areas of specialization include:

- \ High-performance computing
- \ VLSI and computer-aided design
- \ Embedded systems
- \ Software

\ 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 205 *Fundamentals of Computer Systems Software*
- EECS 303 *Advanced Digital Logic Design*
- EECS 346 *Microprocessor System Design*
- EECS 361 *Computer Architecture*
- EECS 392 *VLSI Systems Design Project*

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.

ETA KAPPA NU, ELECTRICAL AND COMPUTER ENGINEERING HONOR SOCIETY \ The student honor society of the Institute of Electrical and Electronics Engineers (IEEE) encourages and recognizes excellence through a variety of service programs and leadership training.

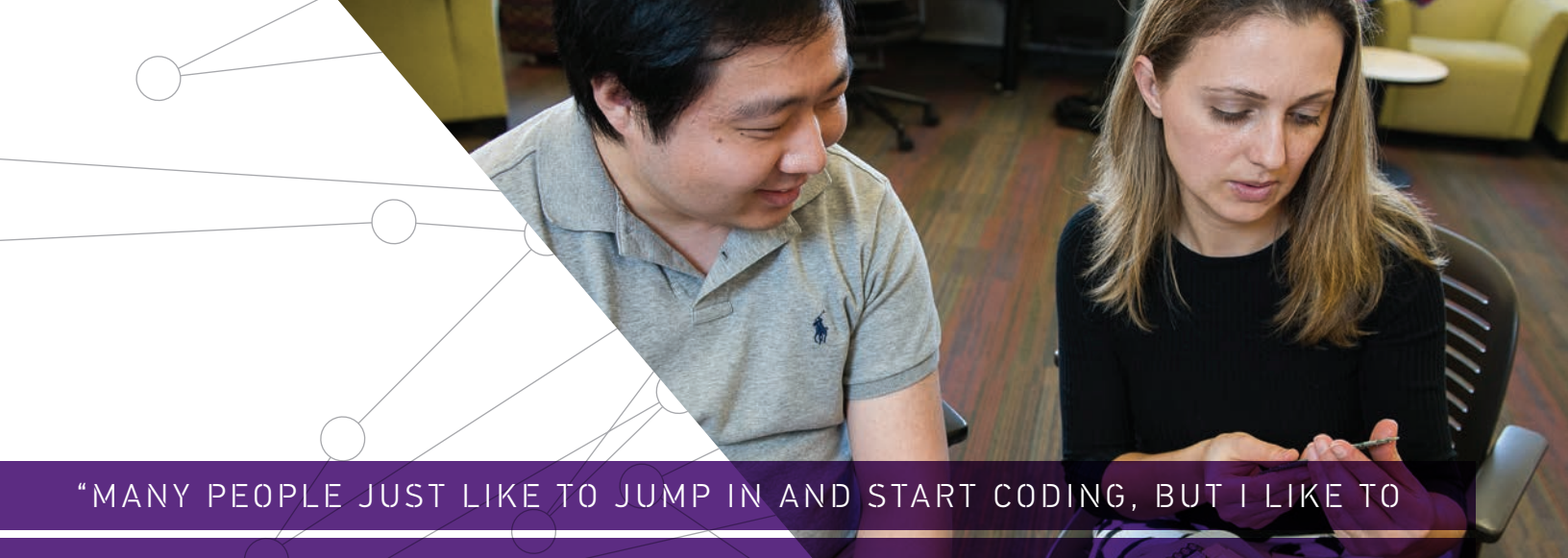
GRADUATE STUDY

PROGRAMS OF STUDY

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

RESEARCH AREAS

- Computer systems \ Computer architecture \ Distributed and parallel systems \ Computer networks \ Embedded systems and sensor networks



“MANY PEOPLE JUST LIKE TO JUMP IN AND START CODING, BUT I LIKE TO PLAY IT OUT IN MY HEAD. I’LL RUN SIMULATIONS AND DEBUG MENTALLY BEFORE I WRITE ANYTHING.”

LEE FAN \ MUSIC PERFORMANCE AND COMPUTER ENGINEERING

CAREERS IN COMPUTER ENGINEERING

WHAT’S NEXT?

Computer engineers can pursue career opportunities across a broad range of interests including:

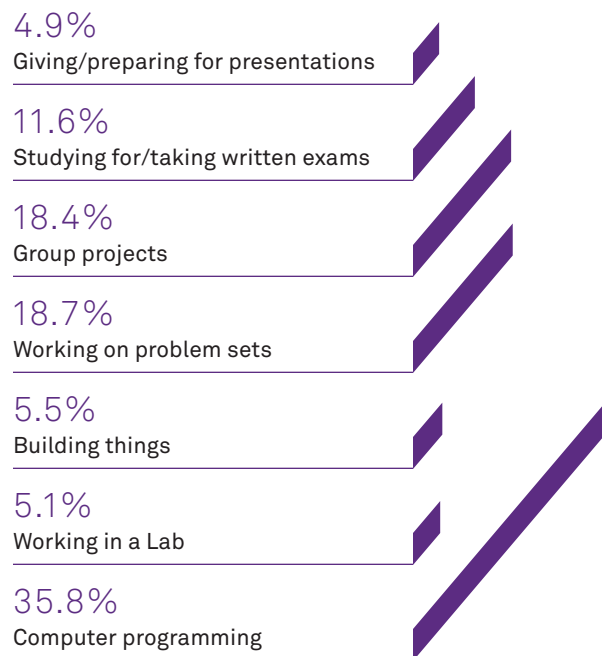
- \ Design and management
- \ Microchips and computers
- \ Application-specific hardware/software systems
- \ Computer-aided design for digital systems, aerospace systems, defense systems, and networked systems

RECENT GRADUATE PLACEMENTS

- \ Electronics prototyping engineer at **Boeing**
- \ Developer at **Adage Technologies**
- \ Data scientist at **Datasclope Analytics**
- \ In-vehicle systems engineer at **Ford Motor Company**
- \ Software engineer at **Amazon**
- \ Site reliability engineer at **Google**
- \ IT analyst at **Johnson & Johnson**
- \ Software development engineer at **Microsoft**
- \ Developer at **Groupon**
- \ CAD engineer at **Intel**

HOW YOU SPEND YOUR TIME IN THIS PROGRAM

BASED ON A SURVEY OF CURRENT STUDENTS.



ENVISION WHAT'S POSSIBLE

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



- \ Learning how to design complex digital systems, including transistors, computer architecture, and embedded systems
- \ Working with state-of-the-art computer workstations and computer-controlled instruments
- \ Applying whole-brain thinking to computer engineering, computer science, and electrical engineering in creative, innovative ways
- \ Exploring the intricacies of circuit systems, robotics, microprocessors, and software systems



FIND YOUR DIRECTION HERE



Northwestern | McCORMICK SCHOOL OF
ENGINEERING

www.eecs.northwestern.edu