

ELECTRICAL ENGINEERING

Engineering Student Development Center
Academic and Career Advising
3612 SC | 319.335.5763
engineering.sdc@uiowa.edu

CAREERS

- **Application Engineer:** Develop, create, and modify general computer applications software or specialized utility programs.
- **Computer Hardware Engineer:** Design and develop computer hardware, such as circuit boards for computer processors, modems, and printers. Also test hardware and supervise its installation.
- **Electronics Engineer:** Design, develop and test components, devices, systems or equipment that use electricity as part of their source of power, from cell-phones and computers to refrigerators and heating systems.
- **Semiconductor Engineer:** Develop, test and optimize semiconductor device manufacturing processes. Conduct final testing and optimization, and device and chip packaging.
- **Optical Engineer:** Design, test, analyze and qualify LEDs, lasers, waveguides, and optical interconnects for integration in photonic chips and circuits.
- **Quantum Engineer:** Design and model qubit architectures for scalable quantum computing. Develop quantum computing, cryptography and communication algorithms. Design, develop and test quantum computer hardware and software.
- **Software Engineer:** Design, develop, test and maintain software.
- **Engineer in almost every field:** Examples include naval engineer, automotive engineer, aerospace engineer, oil and gas engineer, medical engineer, power/renewable energy engineer, material engineer, control engineer, telecommunication engineer, network engineer and many others.

*Some of these positions may require an advanced degree.

SPECIALIZATIONS WITHIN THE FIELD

- Acoustics
- Applied Physics
- Automation
- Bioengineering
- Broadcasting
- Circuits
- Computer Software
- Computer Hardware
- Controls
- Energy Systems
- Embedded Systems
- Financial Services
- Data Science/Machine Learning
- Healthcare Electrical insulation
- HVAC systems
- Imaging processing
- Integrated Circuits
- Internet of Things (IoT)
- Medical Device Development
- Nanotechnology
- Lasers and Electro-optics
- Photonic Systems
- Power Systems
- Radio Frequency (RF) Electronics
- Robotics
- Semiconductor Devices
- Signal Processing
- Software Engineering
- Supercomputing
- Sustainability
- Telecommunications
- Ultrasonics

EMPLOYERS

- Alliant Energy
- Amazon
- Apple
- Boeing
- Boston Electronics
- Caterpillar
- Cerner
- Collins Aerospace
- Design Engineers
- DuPont Pioneer
- Emerson-Fisher Controls
- Facebook Oculus
- GE Healthcare
- Google
- Edward Lifesciences
- Hologic
- Honeywell
- IBM
- Intel
- Intermec
- John Deere
- Lockheed Martin
- Medtronic
- MODUS
- Microsoft
- Northrup Grumman
- Oracle
- Pariveda
- Raytheon
- Rigetti Computing
- Samsung
- Schneider Electric
- Skyworks
- SpaceX
- Tesla
- Whirlpool

<https://careers.uiowa.edu/post-graduation-data#employment-report>