

## Life After Graduation

Computer scientists and software engineers design, analyze and develop software for the computer systems and networks that power today's world. With applications ranging from personal computing and entertainment systems to life-critical applications such as medical, flight and space systems, software must be engineered to demanding performance, reliability and safety standards. Auburn Engineering is producing the undergraduate and graduate students who are capable of meeting these needs.

## The Auburn Advantage

Auburn University has provided instruction, research and outreach to benefit the state and nation for more than 150 years and is among a distinctive group of universities designated as Land, Sea and Space Grant institutions. Auburn makes a nearly \$5 billion economic contribution to the state each year, has more than 250,000 graduates and provides 130 degree programs to more than 24,000 graduate and undergraduate students.

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AUBURN UNIVERSITY

SAMUEL GINN  
COLLEGE OF ENGINEERING

[www.auburn.edu](http://www.auburn.edu)

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Auburn University is an equal opportunity educational institution/employer.

Computer Science and Software  
E N G I N E E R I N G

AUBURN  
UNIVERSITY



## Welcome to the Department of Computer Science and Software Engineering

Auburn University's Department of Computer Science and Software Engineering, one of nine departments in the Samuel Ginn College of Engineering, maintains its place on the cutting edge of computing technology through innovation and achievement. The department is known for many significant accomplishments, including:

- ▶ Providing the nation's first bachelor's degree in software engineering at a public institution
- ▶ Developing the first and only bachelor's degree in wireless engineering
- ▶ Serving as a National Security Agency Center of Academic Excellence, supporting work in information security and assurance

### Undergraduate Curriculum

#### Bachelor of Science in Computer Science

Through hands-on exposure to a variety of computer systems, tools and techniques, computer science provides excellent preparation for students seeking careers in software-related computing fields. Course work includes theoretical computer science, human-computer interaction and net-centric computing.

#### Bachelor of Software Engineering

Equipping students with a balance of theory and practical application, software engineering focuses on the complete development of software systems. Topics include software modeling and design, construction, process and quality assurance, intelligent and interactive systems, networks, operating systems and computer architecture.



#### Bachelor of Wireless Engineering – Software option

Wireless software engineering majors are introduced to wireless communication theories, devices, circuits, systems, networks and applications. Wireless software engineering focuses on application development for embedded software on wireless platforms, as well as the associated server-side and client-side aspects of wireless networks.

#### Minors Offered

##### ▶ Computer Science

Provides a background in computer science theory and practice, including programming in a high-level language, algorithms and data structures

##### ▶ Information Technology

Provides the skills necessary to administer computer and Internet technology, including Web page, applet and servlet development and maintenance, Java, script and object-oriented programming and system administration



### Research and Laboratories

The Department of Computer Science and Software Engineering provides research into many different aspects of the field, from human-computer interaction to satellite software. Broad faculty expertise, combined with the department's quality teaching and state-of-the-art equipment, ensures that students attain a thorough understanding of their respective field. Research applications include:

- ▶ Devices that recognize handwritten characters and respond to voice commands
- ▶ Systems that are wirelessly networked and interact directly with people
- ▶ Techniques for assuring secure and accurate data transmission and reception

The department's research facilities offer students an opportunity to develop specialized skills in emerging technologies.

Current labs include:

- ▶ Center for Innovation in Mobile, Pervasive and Agile Computing Technology (IMPACT)
- ▶ Graphical Representations of Algorithms, Structures and Processes (jGRASP)
- ▶ Center for Information Assurance
- ▶ Intelligent and Interactive Systems
- ▶ Wireless Engineering Research and Education Center (WEREC)



### Extracurricular Opportunities

Auburn Engineering students can participate in a variety of activities beyond the classroom, gaining experience with teamwork and project management. Along with various engineering-focused student competition teams, CSSE students are encouraged to participate in campus organizations such as:

- ▶ Association for Computing Machinery
- ▶ Society of Women Engineers
- ▶ National Society of Black Engineers
- ▶ Upsilon Pi Epsilon honor society
- ▶ Institute of Electrical and Electronics Engineers Computer Society

For more information, visit [www.eng.auburn.edu/organizations](http://www.eng.auburn.edu/organizations)

### Scholarships

The College of Engineering and the Department of Computer Science and Software Engineering provide numerous scholarship opportunities to students at every stage of their academic career. While no application is required for most university and college-wide scholarships, the deadline for computer science and software engineering departmental scholarship applications is Jan. 31.

For information about these offerings, visit us on the Web at [www.eng.auburn.edu/scholarships](http://www.eng.auburn.edu/scholarships)