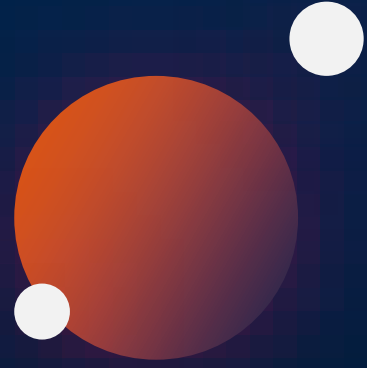
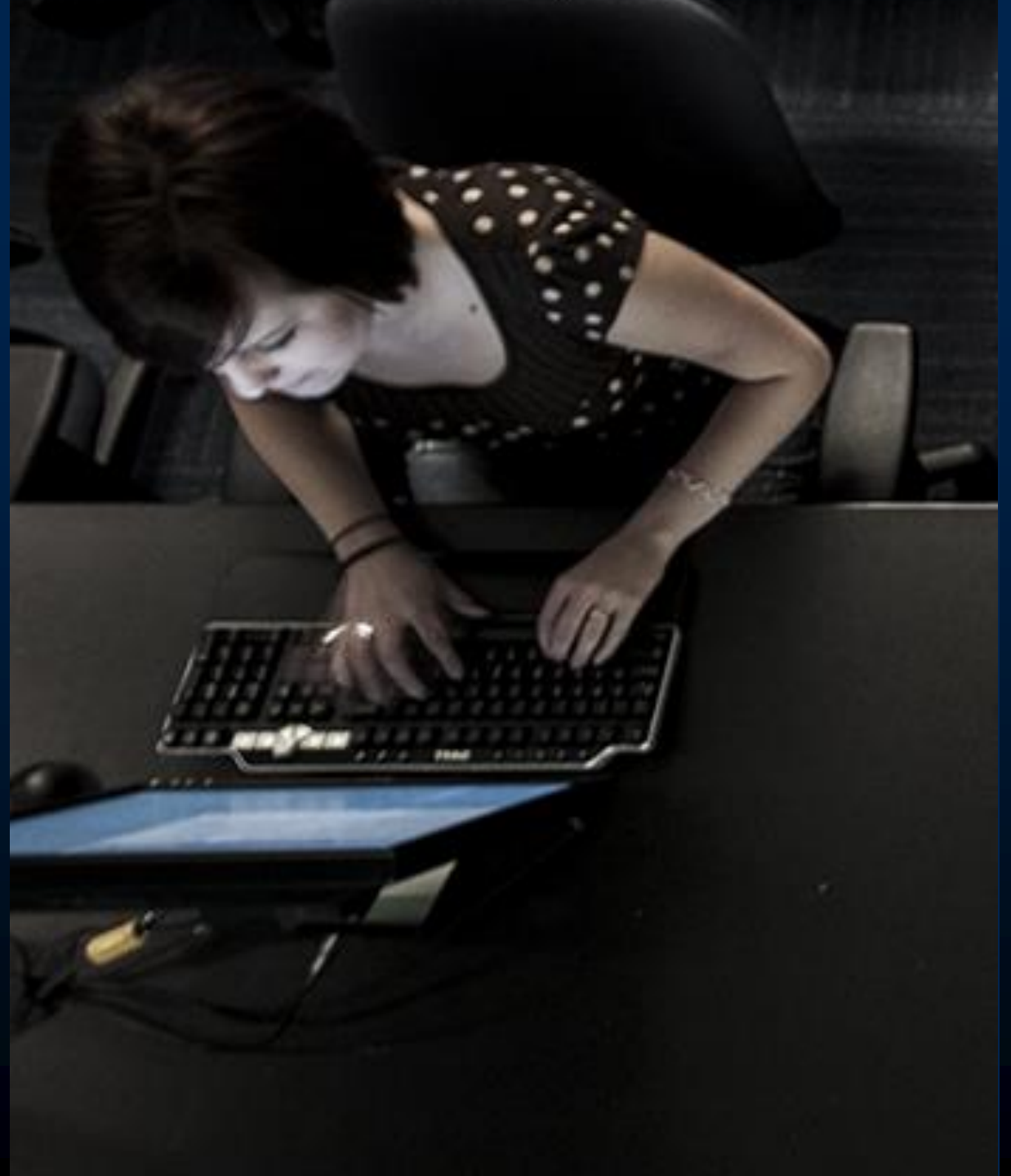




# Department of Computer Science & Software Engineering

An Overview





# Four Undergraduate Degrees

- BS in Computer Science
- Bachelor of Software Engineering
- Bachelor of Wireless Engineering (Software Option)
- Bachelor of Computer Science (Online Degree)
- On-campus degrees are ABET accredited





# Four Graduate Degrees

- PhD in Computer Science & Software Engineering
- MS in Computer Science & Software Engineering (Thesis & Non-Thesis Options)
- MS in Cybersecurity Engineering (expected start fall 2018)
- MS in Data Science & Engineering (expected start fall 2019)





# Enrollment in CSSE at Auburn

- Total: ~1562
- ~ 1333 undergraduates (10% Honors students)
- ~229 graduate students
- Sustained large annual increases in enrollment
- Incoming freshmen average ACT score 29.5



# A Skilled & Motivated Group of Students

- Association for Computing Machinery (ACM) Student Chapter
- TigerDev
- Digital CTF Team – ethical hacking
- ACM Programming Team
- Hackathons
- Auburn University Formula SAE
- Undergraduate Research



# Annual Degree Production





# Job Placement

- Apple, Amazon, Equifax, ExxonMobil, Google, Harris Corp., Lockheed-Martin, McKesson, MITRE, Northrup-Grumman, Price Waterhouse, Raytheon, Verizon...
- Average undergraduate starting salary \$75,000



**Heather Avery PhD '15**  
Vice President  
Aflac



**Seth Denney BS '14**  
Software Engineer  
Amazon



**Sean Cook BS '06**  
Senior Engineer  
Twitter



**Jhilmil Jain PhD '05**  
Senior UX Manager  
Google



**Rose-Gaëlle Belinga MS '12**  
Software Engineer  
Morgan Stanley

# A Diverse Faculty

25 Tenured/Tenure-Track Faculty



6 Teaching Faculty

4 Affiliate/Adjunct Faculty

1 Research Faculty

4

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NSF CAREER awardees

25%

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Women

1

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Presidential Early Career  
Award for Scientists and  
Engineers (PECASE)  
awardee

11%

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Underrepresented  
Minorities

12

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An international faculty  
representing 12  
countries: China, Cuba,  
Korea, India, Jordan,  
Malaysia, Morocco,  
Taiwan, Romania, Turkey,  
USA & Vietnam



# Faculty research funded by

- National Science Foundation
- Multiple Department of Defense Agencies
- Department of Education
- Department of Energy
- NASA
- Industry
- Private Foundations



# Broad Area Research Groups

## Artificial Intelligence & Machine Learning

- Bhattacharya
- Dozier
- Liu
- Narayanan
- Nguyen
- Yilmaz

## Software Analytics & Engineering

- Chang
- Cross
- Hendrix
- Nguyen
- Umphress
- Yilmaz

## Cybersecurity & Internet of Things

- An
- Chapman
- Dozier
- Ku
- Shu
- Umphress

## Computer Games Human-Computer Interaction

## Computer Science Education

- Narayanan
- Seals
- Thomas

## Computer & Wireless Networks

- Biaz
- Lim
- Shu

## Distributed, Embedded, Energy-Efficient, High Performance & Parallel Systems

- Baskiyar
- Biaz
- Chapman
- Qin





## Cyber Research Center

The Auburn Cyber Research Center integrates cutting-edge engineering technology with research to develop innovative methods of protecting our nation's cyber security.



The efforts to safeguard against threats that are man-made or acts of nature are growing in urgency. Auburn Engineering researchers are working to develop technologies that enhance the security of people, property and information. This includes research in unmanned systems, missiles and satellites; hardened concrete and projectile proof materials; as well as unique expertise in modeling and simulation and power generating systems.

Auburn University has been recognized by the U.S. National Security Agency as a Center of Academic Excellence in Information Assurance Research and by the Federal Aviation Administration as a National Air Transport Center of Excellence for Research in Intermodal Transport Environments. In addition, Auburn is one of the 16 National Centers of Academic Excellence in Cyber Operations. Auburn Engineering faculty members also are developing the next generation of autonomous vehicles, air and ground, for enhanced national security and safer more efficient ground transport.

McCrary Institute

Wireless Center

AMNSTC Center

# CSSE courses

- Algorithms
- Artificial Intelligence
- Computational Biology
- Computer Architecture & Organization
- Computer Ethics
- Computer, Cyber & Network Security
- Computer Graphics
- Computer, Wireless & Mobile Networks
- Cloud Computing
- Databases
- Data Mining Technologies
- Data Structures
- Digital Forensics
- Discrete Mathematics
- Energy-Efficient Computing
- Formal Languages
- Game Design & Development
- Human-Computer Interface Design
- Machine Learning
- Object-Oriented Programming
- Operating Systems
- Parallel & Distributed Computing
- Programming Language Principles
- Programming Languages: Java, C, C++, MatLab, HTML, Visual Basic, Assembly Language
- Real-Time & Embedded Systems
- Senior (Capstone) Design
- Smartphone, Web & Personal Computer Application Development
- Software Analytics
- Software Modeling & Design
- Software Process
- Software Quality Assurance
- Wireless Software Engineering
- Algorithms
- Artificial Intelligence
- Computational Biology
- Computer Architecture & Organization
- Computer, Cyber & Network Security
- Computer Graphics
- Computer, Wireless & Mobile Networks
- Cloud Computing
- Databases
- Data Mining Technologies
- Digital Forensics
- Energy-Efficient Computing
- Game Design & Development
- Human-Computer Interaction
- Human-Computer Interface Design
- Machine Learning
- Operating Systems
- Parallel & Distributed Computing
- Real-Time & Embedded Systems
- Smartphone & Web Application Development
- Software Analytics
- Software Process
- Software Quality Assurance
- Software Reengineering



# Contacts

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