

College of Sciences

*Computer Science
Department
Janet Brunelle; CDA*



OLD DOMINION
UNIVERSITY

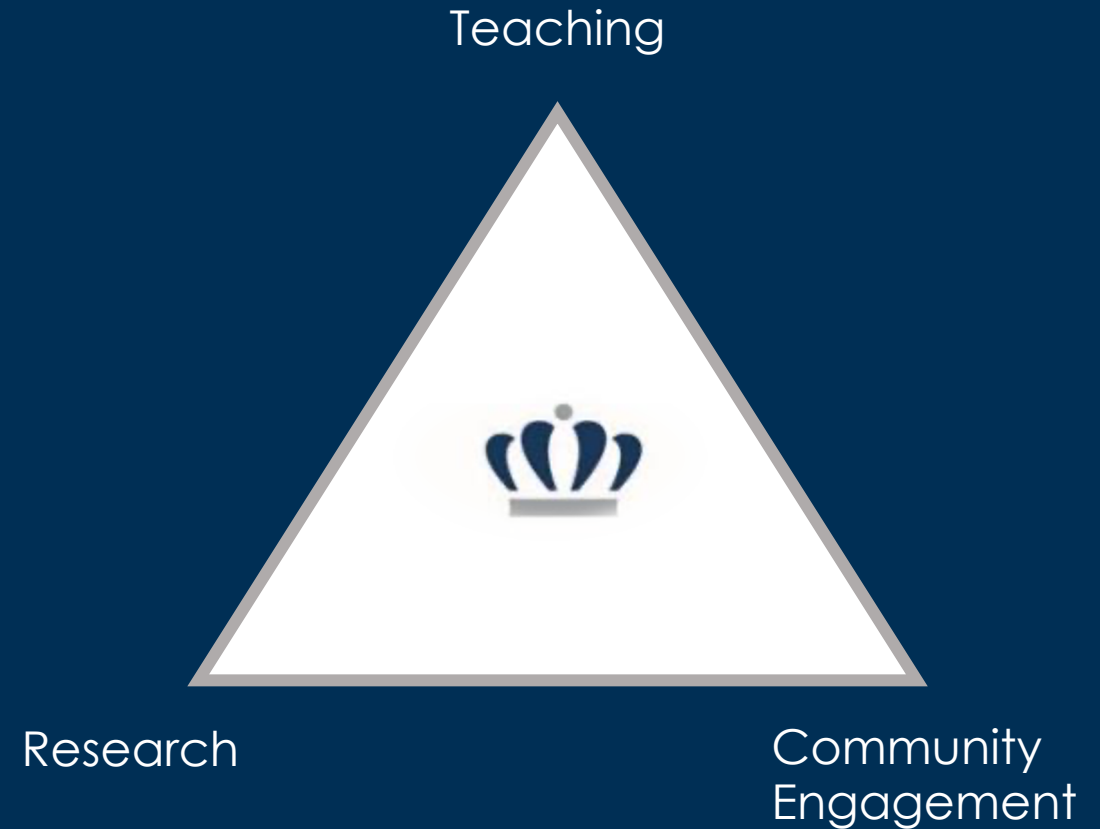
Agenda

- Introductions
- College of Sciences Overview
- Computer Science at ODU
 - Life in the classroom
 - Research
 - Post-graduation
- Questions?



College of Sciences

- Departments
 - Biology
 - General
 - Marine Biology
 - Chemistry
 - Computer Science
 - Math
 - Ocean, Earth, & Atmospheric Sciences
 - Psychology
 - Physics
- Pre-health advising



Computer Science at ODU

- Bachelor of Science in Computer Science (BSCS)
- Bachelor of Science in Computer Science with Teacher Licensure
- Linked BS/MS program (5 years)
- Honors Program
- Tech Talent Investment Program
- Signature Distance Learning Program
- Double Major in 5 year programs: ECE, Cyber Security, Cyber Operations



Skills and Preparation

- Love for Logic and Problem Solving
- Math!
 - Ready for Calculus (MATH 211)
 - Or – the courses to get you there:
 - MATH 163 – Precalculus II
 - MATH 162 – Precalculus I
 - MATH 102/3M - Algebra
- No Previous Programming Assumed
 - You'll start with CS 150 and C++



Life in the Classroom

- Similar to today's professional environments classes will be:
 - Face-to-face (Synchronous), and
 - Online (Asynchronous)
 - All using current technology and software tools that reflect professional, research, and entrepreneur paths
- Programming I and II (150 and 250)
 - 2.5 hour traditional lecture (~100 students per section)
 - 2.5 hour instructor-led hands-on laboratory (~35 students)
 - 1 hour instructor led recitation (~35 students) which for supplemental instruction
- All other courses have a maximum capacity of 50 students, most with required laboratory components
- Capstone course sequence (410 and 411W)
 - Entrepreneurial approach to solving real world problems
 - Team oriented
 - Industry reviewed presentations
 - Topics: research, feasibility, risk assessment, prototyping, oral and written communication



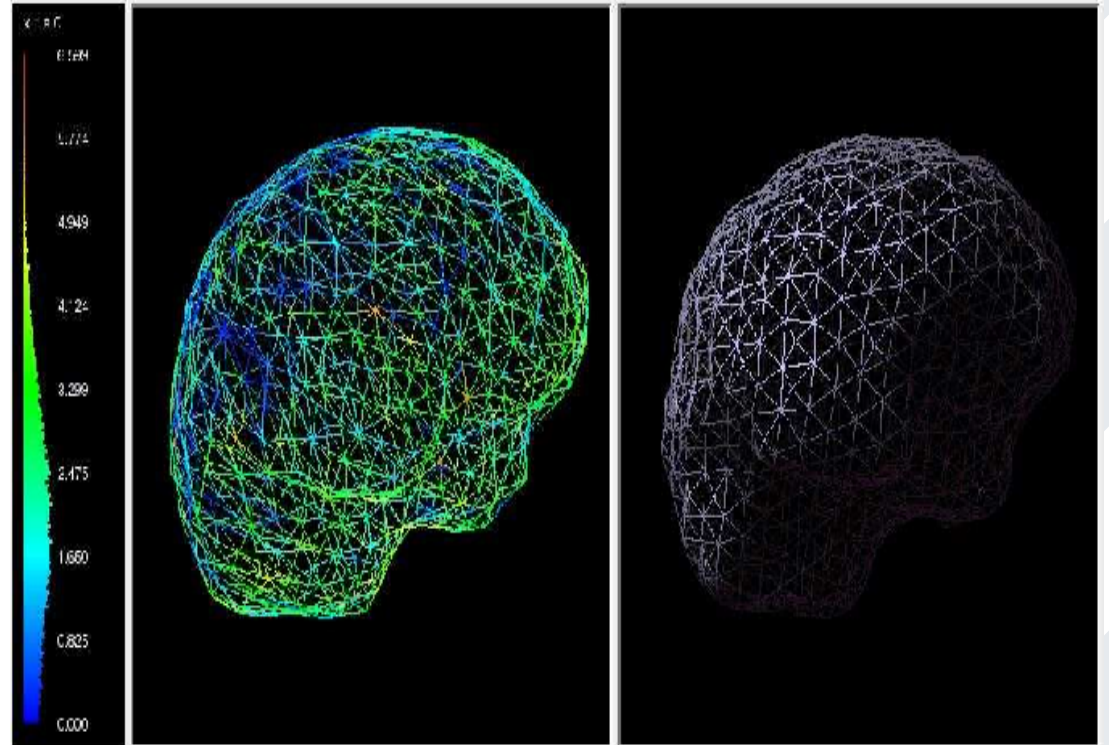
BSCS Degree Requirements

- Lower Division General Education (met by A.S. degree)
- Upper Division General Education
- Math and Statistics – 14 credit hours
 - MATH: [211](#), [212](#), 316; STAT 330
- Programming and Software Engineering – 21 credit hours
 - CS: [150](#), [250](#), 252, 330, 350, 355, 361
- Systems Architecture – 9 credit hours
 - CS: [170](#), [270](#), 471
- Discrete Math and Algorithms – 9 credit hours
 - CS: 381, 390, 417
- Senior Project Capstone Sequence – 6 credit hours
 - CS: 410, 411W, (300T)
- CS Upper-level Electives – 9 credit hours



Popular Elective Courses

- Machine learning
- Artificial intelligence
- Web science
- Parallel computing
- Data science
- Networking
- Cyber security
- App development



Get Involved!

- Honors Program
- Undergraduate Research Opportunities
- Internships
- Community Partnerships
- Professional Networking
- ACM: Association for Computing Machinery
- ACM-W: Association for Computing Machinery- Women
- System Staff – employment with mentoring by our administrators



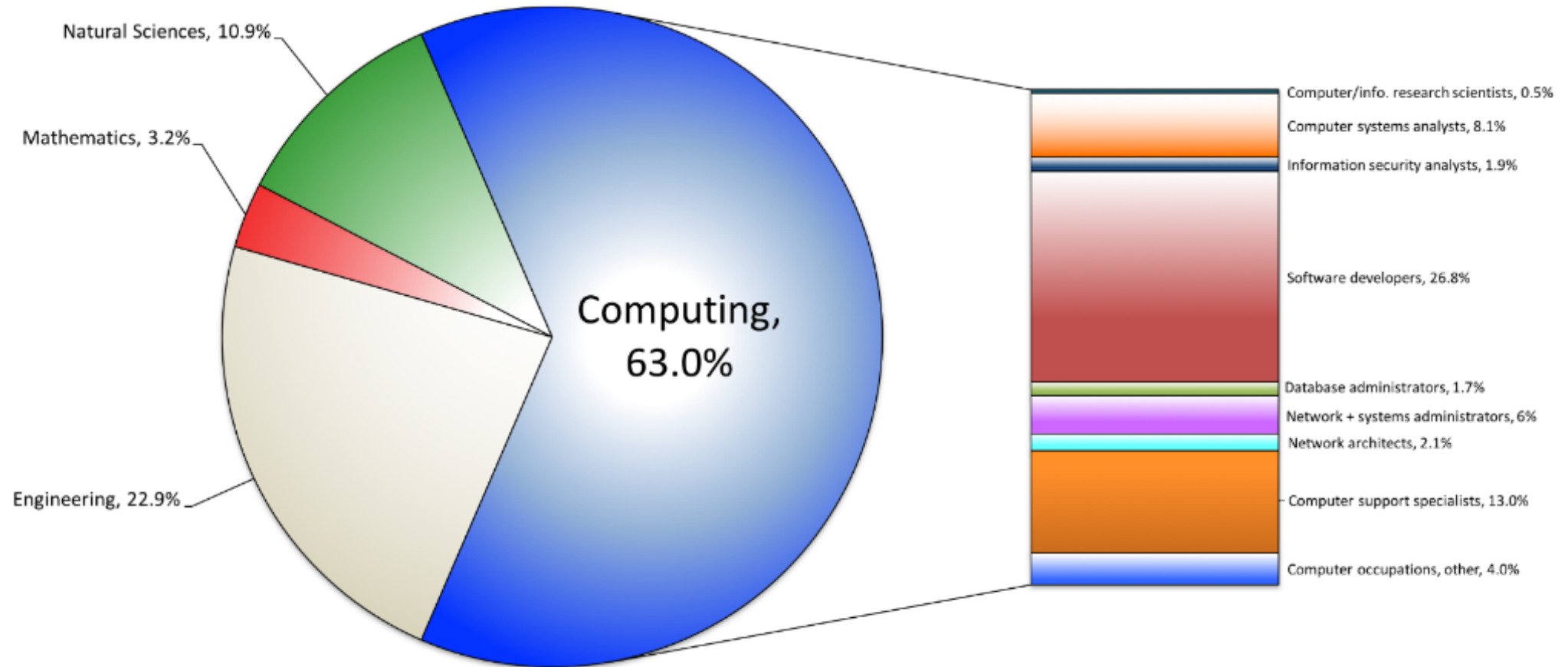
Research Opportunities

- Computer Science is problem solving
 - Using the newest technologies in *innovative* ways
 - Providing *innovative* customized implementations of existing systems
- Undergraduate Research – paid and unpaid
- Undergraduate Honors Program
 - Director of Honors Programs - Dr Jing He – jhe@cs.odu.edu
- Conferences, publications, scholarships, thesis, paid summer research experiences
- CS 395: Research Methods in Web Science



STEM Jobs through 2026

US-BLS Avg Annual STEM Job Openings Thru 2026 As Percentage



Data Source: US BLS Employment Projections (<https://bls.gov/emp/projections/tables/102.html>)



Career Opportunities

- Applications Architect
- Applications Development Engineer
- Information Systems Security Analyst
- Software Engineer
- Network Architect
- Data Warehouse Analyst
- Data Architect
- UX Designer
- Researcher
- Database Manager
- Software Manager
- Software Quality Assurance
- Business Intelligence Analyst
- Cloud Architect
- Machine Learning
- Artificial Intelligence



Career Opportunities - Employers of BSCS Alumni

- Facebook
- ADP
- IBM
- Dominion Enterprises
- Google
- LinkedIn
- MITRE
- Naval Surface Warfare Center
- Anthem
- RedHat
- Amazon
- L3Harris
- ODU ITS
- Alion Science
- Frontier



Important Notes...

- Internships are guaranteed! Weekly emails from your advisor about new opportunities from industry contacts
 - So you can - Check the “experience required” box on applications
- \$20,000 pay differential for MS degree holding applicants
 - Linked BS/MS in CS program – 1 additional year of study
 - MS in Computer Science
 - MS in Data Science
 - MS in CIS: Computer Information Systems
 - MS in Cyber Security



Questions?

