WHAT CAN I DO WITH MY
COMPUTER SCIENCE
DEGREE?

CareerCenter at UMBC

Using the Major Sheet:
• Large headings indicate **industry** area and subheadings indicate **employers** within that area.
• Use the titles to search for careers and related careers in order to explore your options within different areas of industry. Note that some career titles have multiple names for similar positions.
• An asterisk (*) notes that additional training (certification, graduate school, high level of experience) may be needed in order to obtain this career. Make sure to thoroughly research career pathways.

SOFTWARE ENGINEERING
• Software Engineer	• Software Developer	• Systems Analyst
• Software Designer	• Software Security Specialist	• Software Test Engineer
• Software Quality Assurance Engineer	• Software Engineering Manager	• DevOps Engineer
• Software Project Manager	• Software Integration Engineer	• Data Engineer
• User Experience (UX/UI) Designer		

ARTIFICIAL INTELLIGENCE
• AI Engineer	• Machine Learning Engineer	• Data Scientist
• AI Researcher	• NLP Engineer	• Computer Vision Engineer
• Robotics Engineer	• AI Ethics Specialist	

CYBERSECURITY
• Information Security Analyst	• Security Enginrrt	• Ethical Hacker
• Cryptographer	• Security Consultant	• Incident Responder
• Security Architect	• Penetration Tester	• Network Security Engineer
• Forensic Analyst		

DATA SCIENCE
• Data Scientist	• Data Engineer	• Data Quality Manager
• Business Intelligence Analyst	• Business Intelligence Analyst	• Data Architect
• Data Visualization Specialist	• Machine Learning Engineer	• Predictive Analyst
• Quantitative Analyst	• Big Data Engineer	• Data Analyst
• Data Mining	• Data Warehousing	• Data Visualization
• Data Administrator	• Business Intelligence (BI) Developer	

MOBILE DEVELOPMENT
• Mobile Application Developer	• Customization Developer

SOFTWARE DEVELOPMENT
• Full Stack Developer	• Front-End Developer	• Back-End Developer
• Mobile App Developer	• Game Developer	• DevOps Engineer
• Software Architect	• Quality Assurance Engineer	• Database Administrator

GAMING & ANIMATION
• Video Game Designer	• Graphics Programmer	• 3D Artist
• Rendering Engineer	• Visualization Specialist	• Virtual Reality Developer
• Augmented Reality Developer	• Computer Animation Specialist	• Game Graphics Programmer
• GPU Programmer	• CAD Designer	• Multimedia Developer

WEB DEVELOPMENT
- Web Designer
- Web Developer
- Front-End Developer
- Back-End Developer
- Full Development
- Web Administrator
- E-Commerce Developer
- CMS Developer
- User Interface Developer
- Web Accessibility Specialist
- Web Performance Engineer

SOFTWARE TESTING AND QUALITY ASSURANCE
- Quality Assurance Engineer
- Test Automation Engineer
- Software Tester
- QA Analyst
- Performance Tester
- Test Manager
- Test Architect
- Usability Tester
- Security Tester
- Test Environment Manager

NETWORKING AND SYSTEMS
- Network Administrator
- Systems Administrator
- Network Engineer
- Cloud Architect
- IT Project Manager
- Systems Analyst
- Network Security Engineer
- Database Administrator
- IT Support Specialist
- Visualization Engineer

IT MANAGEMENT AND CONSULTANCY
- IT Project Manager
- IT Consultant
- IT Director
- Chieft Technology Officer (CTO)
- IT Service Manager
- IT Business Analyst
- Solutions Architect
- Technical Sales Engineer
- IT Auditor
- IT Strategy Consultant

MACHINE LEARNING
- Computer Vision Engineer
- Maching Learning Engineer
- Machine Learning Scientist
- Deep Learning Engineer

DATABASE MANAGEMENT
- Database Administrator (DBA)
- Database Developer
- Data Architect
- Database Analyst
- Data Warehouse Manager
- Database Security Specialist
- Data Migration Specialist
- Database Performance Analyst
- Database Consultant
- Big Data Engineer

Preparation for a Competitive Job Market:
- **Focus on transferable skill sets**, as you pursue a degree in Computer Science.
- **Obtain relevant internship, co-op, or volunteer experiences.**
- **Supplement Computer Science coursework** with **classes** that are **relevant** to your career.
- **Meet with a Career Specialist** to explore options, make decisions, and prepare for career choices.

Additional Career Center Resources:
- **Major Sheets (CMPE, CMSC, ENMG, HCC, IS, MATH):** https://careers.umbc.edu/tools/majors/
- **The Vault:** https://careers2.umbc.edu/tools/vault/
  - Use the top search bar to find these relevant guides:
    "Vault Career Guide to Information Technology"   "Vault Guide to Computer Hardware Jobs"
    "Vault Guide to Nanotechnology Jobs"   "Vault Guide to Computer Software Jobs"
    "Vault Guide to Computer and Video Game Design Jobs"
    "Vault Guide to Internet Services and Security Jobs"

- **Professional Associations:**
  IEEE Computer Society: https://www.computer.org/web/guest
  Association for Computing Machinery: http://www.acm.org/
  American Association for Engineering Education: https://www.asee.org/
  National Society of Black Engineers: https://nsbe.org/
  Society of Women Engineers: http://societyofwomenengineers.swe.org/