

WHAT CAN I DO WITH MY COMPUTER ENGINEERING DEGREE?

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.

PROGRAMMING

Computer Service Co., Large Corp. /Organizations, Software Development Firms, Computer Manufacturers

Operating Systems

- Systems Programmer
- Programmer Trainee
- Software Development Specialist
- Systems Software Developer
- Software Engineer
- Software Integration Engineer
- Computer Programmer
- Software Developer

Applications

- Computer Programmer
- Applications Software Developer
- Scientific Applications Programmer
- Associate Applications Developer
- Software Development Specialist
- Information System Programmer
- Field Systems Technician
- Programmer Trainee
- Software Engineer
- Software Integration Engineer
- Firmware Engineer
- Process Control Programmer
- Applications Analyst
- Applications Engineer
- Applications Programmer
- Software Developer
- Software Specialist
- Software Technician
- Virtual Reality Developer

Data Communication

- Data Communications Programmer
- Data Communications Analyst
- Data Comm. Specialist

Hardware

- Computer Chip Designer
- Hardware Designer
- Hardware Engineer
- Design Engineer

NETWORK ADMINISTRATION

- LAN Specialist
- Network Administrator
- Communications Specialist
- Systems Administrator
- LAN Administrator
- LAN Analyst
- Systems Consultant
- Network Designer

SYSTEMS ANALYSIS

Management Consulting Firms, Computer Manufacturers, Computer Service Co.

- Systems Analyst
- Computer Analyst
- Programmer/Analyst
- Associate Analyst
- Systems Manager
- Digital Systems Analyst
- Associate Systems Analyst
- Assistant Analyst

DATA PROCESSING MANAGEMENT

Hospitals, Educational Institutions, Manufacturers, Government, Financial Corporations

- Data Processing Director
- Data Processor
- Data Processing Manager
- EDP Systems Analyst
- EDP Manager
- EDP Systems Sales Rep.

SECURITY

Data Processing Companies, Banks, Credit Companies, Computer Consulting Firms

- Computer Security Specialist
- Security Specialist
- Encryption Specialist

DATABASE MANAGEMENT

- Database Administrator
- Data Retrieval Specialist
- Database Specialist
- Database Manager
- Data Administrator
- Data Control Manager

INTERNET

- Web Site Engineer
- Cyber Journalist
- Website Programmer
- Web Designer
- Website Analyst
- Internet Consultant

PRODUCT SUPPORT

Hardware/Software Manufacturers

- Service Engineer
- Systems Engineer
- Product Support Specialist
- Computer Repair Specialist
- Design Engineer
- Test Engineer
- Technology Engineer
- Electronic Drafter
- Customer Engineer
- Field Service Representative
- Computer Support Specialist
- Technical Support Engineer
- Project Engineer
- Systems Designer
- Circuit Designer
- Controls Designer
- Product Support Rep.
- Technical Support Specialist
- Technical Support Analyst
- Product Designer
- Software Engineer
- Instrumentation Technician
- Cable Engineer
- Semiconductor Developer

DIGITAL IMAGING

Software Development Co., Educational & Publishing Co., Cable Co., TV Networks, Government

- Digital Graphic Artist
- GUI Designer
- Technical Director
- Special Effects Programmer
- Computer Game Programmer
- Multimedia Producer
- Computer Animator
- Interactive Multimedia Associate
- CD ROM Producer
- Clip Art Production Assistant
- Graphics Programmer

DOCUMENTATION / PUBLISHING

Comp. Trade Magazines, Hardware/Software Manufacturers, Publishing Houses

- Technical Writer
- Documentation Specialist
- Technical Librarian

SALES

Retail Stores, Manufacturers, On-line Services Co., Computer Learning Centers

- Sales/Field Sales Representative
- Sales Engineer
- Marketing Representative
- Technical Sales Representative
- Product Evaluator
- Software Buyer

HUMAN RESOURCES

- Technical Recruiter
- Software Talent Agent
- High Tech Headhunter

EDUCATION

In-house Training Dept., Computer Learning Centers, Computer Training Firms

- Computer Education Specialist
- Internet Instructional Designer
- Training Specialist
- Computer Teacher
- New Product Instructor
- Internet Instructor

Preparation for a Competitive Job Market:

- **Focus on transferable skill sets**, as you pursue a degree in Computer Engineering.
- **Obtain relevant internship, co-op, or volunteer experiences.**
- **Supplement Computer Engineering 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 Engineering Jobs"](#)

["Vault Guide to Computer Hardware Jobs"](#)

["Vault Guide to Internet Services and Security Jobs"](#)

["Vault Guide to Computer Software Jobs"](#)

["Vault Guide to Information Technology Jobs"](#)

["Vault Guide to Computer and Video Game Design Jobs"](#)

["Vault Guide to Nanotechnology Jobs"](#)

- **Professional Associations:**

American Association for Engineering Education: <https://www.asee.org/>

Institute of Electrical and Electronics Engineers: <https://www.ieee.org/education/index.html>

National Society of Black Engineers: <https://nsbe.org/>

Society of Women Engineers: <http://societyofwomenengineers.swe.org/>