

COMPUTER SCIENCE

What can I do with this degree?

The field of computer science is constantly changing. The areas listed below do not exhaust possible career options.

AREAS

EMPLOYERS

STRATEGIES

PROGRAMMING

Systems
 Scientific Applications
 Business Applications
 Intelligence
 Warehousing
 Information Delivery
 Maintenance
 Project Management

Computer vendors
 Software and computer companies
 Any large organization including:
 Banks, retail chains, manufacturers,
 universities, and government agencies
 Management consulting firms
 Contract and temporary employers
 Research laboratories

Gain relevant experience through internships or co-ops.
 Develop an attention to detail and a flair for creativity.
 Learn to work well with a team and to meet deadlines.
 Supplement computer degree with courses in business,
 science, or engineering.
 Stay current on programming languages.
 Earn a master's degree for upper level positions.
 Seek the Certified Computing Professional designation
 by completing a series of exams and experiential
 requirements.

SYSTEMS DEVELOPMENT

Analysis
 Design
 Support
 Quality Assurance
 Specialty Systems
 Database
 Client-Server
 Expert

Banks and financial institutions
 Insurance companies
 Consulting firms
 Manufacturers
 Local, state, and federal government
 Computer companies
 Research institutions

Develop strong interpersonal skills. Learn to communicate
 effectively with technical and non-technical colleagues.
 Gain programming experience. Many analysts begin
 their careers as programmers.
 Become an effective problem solver.
 Take business courses. Earn an M.B.A. degree for
 advanced positions.
 Plan to continually educate self on new computer lan-
 guages and technology.

NETWORK TECHNOLOGY

Installation and Maintenance
 Administration

Variety of organizations and industries

Work in university computer labs.
 Develop good communication skills and an interest in
 helping others.
 Gain knowledge in a variety of computer areas including
 minor programming, software, and hardware.
 Stay abreast of the latest technology and software.
 Earn certifications in networking and computer security.

AREAS

EMPLOYERS

STRATEGIES

INTERNET

Programming
Software Design
Systems Analysis
Hardware Production
Web Page Design

Network access points
Backbone operators
Online service providers
Internet service providers
Computer/equipment vendors
Internet-related companies including:
 Browsers
 Search engines
 Website design services
Large businesses

Gain experience as a webmaster through part-time jobs, internships, or volunteering to design web pages for student organizations.
Learn web-related programming languages.
Take graphic design courses to develop creativity.
Learn to communicate and work well with others in a team by participating in group projects or student organizations.
Earn a master's degree in computer science for advanced opportunities in programming, analysis, or hardware/software design.

CONSULTING

System Installation
System Implementation
Training

Consulting firms
Self-employed

Obtain a strong technical knowledge of computers, a background in business management, and experience as a systems analyst.
Learn various programming languages and operating systems.
Develop exceptional analytical and interpersonal skills.

EDUCATION

Teaching
Instructional Technology

Public and private schools, K-12
Colleges and universities

Certification required for public school teaching.
Earn a doctoral degree in computer science for post-secondary teaching.
Earn a graduate degree in information technology or a related field for instructional technology.
Develop a research specialty for university teaching.
Gain experience working with other students through tutoring or positions in computer labs.

NON-TECHNICAL

Customer/Product Support
Technical Writing
Sales and Marketing

Software/hardware manufacturers
Retail stores
Software vendors

Develop excellent communication skills and an interest in helping customers solve problems.
Work in university computer labs.
Supplement curriculum with technical writing courses to develop skills.
Seek related work experiences.

GENERAL INFORMATION

- Complete informational interviews with current computer science professionals to help establish career goals.
- Having related experience is critical to most employers that hire computer science majors. Obtain an internship, co-op, or part-time job in a relevant area to increase employability.
- Obtain vendor specific certifications or networking certifications to gain a competitive edge.
- Develop strong interpersonal, communication, and other “soft skills.” Learn to work well on a team.
- Programming and consulting may go hand-in-hand. Many occupations in these areas have responsibilities that overlap.

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Computer Science Links:

[Sloan Foundation Careers in Science, Technology, Engineering and Mathematics](#)

[Careers in Computers](#)

[Association for Computing Machinery](#)

[Computer World Careers in Computers](#)

[Jobs for Software Developers](#)

[Get in the Game - Computer Game Industry Information](#)

[Game Jobs @ GameDev.net](#)

[Careers in Computer Science and Computer Engineering](#)

[Computer Programmer from the Occupational Outlook Handbook](#)

[Systems Analyst, Computer Scientists, and Database Administrators from the Occupational Outlook Handbook](#)

[Computer and Information Systems Managers from the Occupational Outlook Handbook](#)

AREAS

PROGRAMMING

Systems

Scientific Applications

Business Applications: Intelligence, Warehousing, Information Delivery, Maintenance

Project Management

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Computer vendors

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Any large organization including: Banks, retail chains, manufacturers, universities, and government agencies

Management consulting firms

Contract and temporary employers

Research laboratories

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Develop an attention to detail and a flair for creativity.

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Stay current on programming languages.

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Design

Support

Quality Assurance

Specialty Systems: Database, Client-Server, Expert

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Prepared by the Career Planning staff of Career Services at The University of Tennessee, Knoxville. (2005) UTK is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer