

Computer Information Systems Careers

What can I do? Where can I go?



Students in a bachelor's degree program for Computer Information Systems will learn to play a vital role in the technological direction of their organization. They will learn the in and outs of Information Systems, including the construction of business plans, overseeing network security and directing day-to-day internet operations. A bachelor's degree in Computer Information Systems will provide you with the necessary leadership and communication skills you'll need to advance your IT career. In the modern workplace, it is imperative that technology works both effectively and reliably. Computer and information systems managers play a vital role in the implementation of technology within their organizations. Computer and information systems managers direct the work of systems analysts, computer programmers, support specialists, and other computer-related workers. They plan and coordinate activities such as installation and upgrading of hardware and software, programming and systems design, development of computer networks, and implementation of Internet and intranet sites. They analyze the computer and information needs of their organizations from an operational and strategic perspective and determine immediate and long-range personnel and equipment requirements.

Computer Information Systems Skills

- Systems development
- Critical and logical thinking
- Leadership
- Oral Communication
- Written and interpersonal communication skills
- Software installation/upgrading
- Programming/Systems Design
- Network Maintenance
- Network Security
- Strategic Planning
- Systems analysis and design
- IT system implementation
- Knowledge of computer programming language
- Knowledge of database management system
- Knowledge of systems analysis and design principles
- Troubleshooting
- Creative problem solving
- Technical writing skills

Areas of Specialization

- Fraud Detection
- Forensic Auditing
- Systems Analysis/Design
- Programming
- e-Commerce
- Network Administration
- Database Design/Administration
- Computer Systems Administration
- Software Engineering

Degrees/Certifications

- Bachelor of Business Administration (BBA) with a major in Computer Information Systems (CIS)
- Certificate in Computer Information Systems (CIS)
- Master of Science in Accounting and Information Technology (MsAIT)
- Certified Information Systems Security Professional (CISSP)
- Systems Security Certified Practitioner (SSCP)
- Certified Information Security Manager (CISM)
- Symantec Certifications: Product Specialist (SPS), Technology Architect (STA), Security Engineer (SCSE), Security Practitioner (SCSP)
- Master of Network Science (MNS)
- Sun Certified Java Developer
- Certified Network Expert (CNX)
- IBM Certified AS/400 Professional System Administrator Certifications in: Apple OSX or Linux
- Microsoft's MCSE, MCSA, and MCP, Cisco's CCNA and CCDA

Chief technology officers (CTOs) Evaluate the newest and most innovative technologies and determine how these can help their organizations. The chief technology officer often reports to the organization's chief information officer, manages and plans technical standards, and tends to the daily information technology issues of the firm. Because of the rapid pace of technological change, chief technology officers must constantly be on the lookout for developments that could benefit their organizations. Once a useful tool has been identified, the CTO must determine an implementation strategy and sell that strategy to management.

Management information systems (MIS) directors or information technology (IT) directors Manage computing resources for their organizations. They often work under the chief information officer and plan and direct the work of subordinate information technology

employees. These managers ensure the availability, continuity, and security of data and information technology services in their organizations. In this capacity, they oversee a variety of user services such as an organization's help desk, which employees can call with questions or problems. MIS directors also may make hardware and software upgrade recommendations based on their experience with an organization's technology.

Project managers Develop requirements, budgets, and schedules for their firms' information technology projects. They coordinate such projects from development through implementation, working with internal and external clients, vendors, consultants, and computer specialists. These managers are increasingly involved in projects that upgrade the information security of an organization.

Career Paths

(Some of the occupations outlined in this brochure may require additional education or training)

Sample Job Titles

- Chief Information Officer
- Chief Technology Officer
- Director of Systems Development
- Director of E-Commerce
- Chief Security Officer
- Internet Technology Strategist
- Director of IT Operations
- Product Manager
- Information Security Manager
- Application Development Manager
- Database Manager
- Data Warehousing Manager
- Internet/Intranet Manager
- E-Commerce Manager
- Project Leader
- Software Engineer
- Messaging/E-Mail/Groupware Specialist
- Quality Assurance Specialist
- E-Commerce Specialist
- Systems Architect
- Project Leader
- Software Engineer
- Messaging/E-Mail/Groupware Specialist
- Quality Assurance Specialist
- Consultant
- Computer Support Analyst
- Computer Training Specialist
- Database Engineer
- Data Communications Manager
- Teacher/Trainer
- Technical/Trainer
- Technical Director/Manager
- Technical Support
- Web Developer

Possible Work Setting

- Government agencies
- Colleges and universities
- Nonprofit organizations
- Software companies
- Automotive industry
- Aerospace companies
- Engineering companies
- Computer vendors
- Contract & temporary
- Employers
- Network access points
- Banks
- Insurance companies
- Consulting firms
- Research institutions
- Software/hardware manufacturers
- Retail stores
- Manufacturers
- Research institutions
- Universities
- Chemical Industry
- Communication Companies
- Computer Hardware & Software Companies
- Consulting & Services Industry
- Computer & Data Processing Service Companies
- Direct Marketing Companies
- Media Companies
- Transportation Companies
- Travel Companies
- Security Companies
- Engineering Firms

Information for this handout compiled from: EduChoices "Computer Information Systems Degree Summary – Bachelor Degree info" • Worldwidelearn website "Guide to College Majors in Information Systems" • Bureau of Labor Statistics • Georgia State University "Careers Available to Computer Information Systems Majors" • Texas State Career Services website "What Can I Do With This Major" • Florida State University Career Center website "Management Information Systems (MIS)"