



COMPUTER SCIENCE & INFORMATION TECHNOLOGY

Bachelor of Science: Computer Science

Bachelor of Science: Information Technology

Minor: Computer Science, Information Technology, Game Development and Web Development

Certificate: Cybersecurity Certificate

The Bachelor of Science degree in Computer Science is a traditional computer science degree. It focuses on the fundamentals for computer science and application development. Students who receive a degree in Computer Science may choose to work in a variety of areas after graduation, such as application development, software engineering and software support, or go on to graduate school. The Bachelor of Science in Information Technology focuses on application support, including network, security, and database. Upon graduation, these students may choose to work as security specialists, network managers or technicians, system administrators or web developers. Employers recommend one or more internships to be successful and competitive when entering this field.

Career types associated with Computer Science or Information Technology

(Is this a good fit for you? Are you a...)

- Investigative - "Thinker"
- Conventional - "Organizer"
- Social - "Helper"

Related skills, values, and qualities

- Ability to adapt to constant change
- Proficiency in reading, writing, and thinking, questioning, analyzing and problem solving
- Ability to think logically and organize
- Proficiency with computers
- Aptitude for accuracy and detail
- Strong math background
- Ability to work under pressure
- Ability to concentrate for long periods of time

Courses Computer Science & Information Technology majors typically enjoy

- Algebra, Trigonometry, Calculus
- Computer Programming
- Computer Science
- Criminal Justice
- Information Technology
- Networking
- Cyber Security
- Web Development

Common interests of Computer Science majors

- Working with computers, software, gaming
- Troubleshooting and repairing electronic equipment
- Completing puzzles or playing games of strategy
- Solving logic problems
- Participating in Computer Science or related clubs
- Working part-time or volunteering in a technology store/department
- Reading computer or technology publications

For more information about the major

Contact the Computer Science and Information Technology Department, 256 Old Main, 610-683-4340, or visit www.kutztown.edu/csit

KU Majors related to Computer Science

Mathematics, Physics, Communication Design, Applied Digital Arts

FOUR STEPS TO SUCCESS

EXPLORE

DISCOVER

EXPERIENCE

IMPLEMENT

1ST YEAR

2ND YEAR

3RD YEAR

4TH YEAR

- Enroll in the Career Exploration Certificate.
- Attend info sessions to learn about career development and personal branding.
- Take a career assessment to identify and confirm interests.
- Get involved in campus clubs and organizations.
- Develop basic workplace skills through jobs or volunteer work.
- Talk with professors, family, and friends about career ideas.
- Conduct informational interviews with professionals working in fields of interest.
- Develop a relationship with your professors and faculty advisor.
- Meet with CDC career coach.
- Attend info sessions to learn about resume writing, and externships.
- Confirm your choice of major and consider options for double major or minor.
- Research careers of interest.
- Complete a job shadowing (externship) experience.
- Seek meaningful employment or volunteer work in a field related to your major.
- Explore options for undergraduate research and study abroad.
- Write a resume and have it reviewed by the CDC.
- Manage your online presence.
- Enroll in the Career Success Certificate.
- Complete an internship and/or undergraduate research.
- Attend info sessions about internships, interviewing, job search strategies, and grad school.
- Build a LinkedIn profile and continue to monitor your online presence.
- Complete a mock interview.
- Build skills through research projects, part-time employment, and volunteer work.
- Participate in employer panels, site visits & networking events.
- Attend internship & job fairs.
- Take on a leadership role in a student organization or work.
- Consider graduate school options and prepare for admissions tests.
- Attend your Senior Kick-off session and other info sessions to prepare for job search/grad school.
- Update your resume and LinkedIn profile.
- Create cover letter drafts.
- Gain experience through internships and/or undergraduate research.
- Secure references for job/grad school applications.
- Create your "30 second" commercial/elevator pitch.
- Meet with CDC to develop job search strategies.
- Research employers.
- Network with professionals through events and social media.
- Join a professional organization in your discipline.
- Attend the senior etiquette luncheon or dinner.
- Participate in job fairs and on-campus interviewing.

Sample Career Titles

Computer Science or Information Technology majors can be found working in a wide variety of career fields. Here are just some career titles that may be of interest. Please note that some jobs may require further education and training.

To learn more about these careers, visit <http://online.onetcenter.org> or www.bls.gov/oco.

Application/Programmer
 Communications Specialist
 Computer Consultant
 Computer Engineer
 Computer Facilities Manager
 Computer Installation Specialist
 Computer Marketing/Sales
 Computer Operator
 Computer Security Analyst
 Computer Service Technician
 Computer Systems Analyst
 CQI Production Manager
 Cryptographer/Cryptologist
 Cybersecurity
 Data/Database Analyst
 Data Communications/Security Analyst
 Distribution Manager
 Educator/Trainer
 Employee Relations Specialist

End-User Computing Manager
 Engineering Lab Technician
 Environmental Technologist
 Hardware Sales/Service Person
 Information Scientist
 Information Systems Developer
 Information Systems Manager
 Information Technology Manager
 Internet Developer
 Market Analyst
 ISO Specialist
 LAN/Logistics Manager
 Materials Controller
 Meteorologist
 Network Administrator/Manager
 On-Line Services Manager
 Operating Systems Programmer
 Operations Manager/Analyst
 PC Support Specialist

Product Development/Line Manager
 Product Forecaster/Estimator
 Production Scheduler/Planner
 Production Support Specialist
 Programmer: Engineering & Sci.
 Software Development Specialist
 Software Engineering Specialist
 Software Package Developer
 Software Salesperson
 Software Support Tech/Specialist
 Systems Administrator/Analyst
 Systems Consultant
 Systems Programmer
 Systems Technical Manager
 Technical Sales/Support Rep.
 Technical Writer
 Telecommunications Manager
 User Support Analyst
 Web Designer

Common Internship Sites and Employers

Computer Science and Information Technology majors often find internships and employment in the following fields/industries.

- Banks & Investment Firms
- Business & Industry
- Colleges/Universities
- Consulting Firms
- Federal, State & Local
- Healthcare
- International Agencies
- Manufacturing
- Military
- Research & Development
- Telecommunications



Handshake is the primary online resource
for preparing and connecting students and alumni with employers.
www.kutztown.edu/handshake

Useful Websites for Computer Science & Information Technology Majors

Whether you are researching related career fields, applying for internships or jobs, or planning to join a professional association, these websites are for you!

Industry/Employment Information

- Computer Jobs
www.computerjobs.com
- Computer Work
www.computerwork.com
- Dice
www.dice.com
- IEEE
jobs.ieee.org
- Internet Society
www.internetsociety.org
- Just Tech Jobs
www.justtechjobs.com
- Tech America
www.techamerica.org
- LinkedIn Jobs
www.linkedin.com/jobs
- Computer Science.org
www.ComputerScience.org

Professional Associations

- American Society for Info Science & Technology
www.asist.org
- Association for Computing Machinery
www.acm.org
- Association of IT Professionals
www.aitp.org
- Association for Women in Computing
www.awc-hq.org
- Computing Research Association
www.cra.org
- Computer Society
www.computer.org
- IT Association of America
www.itaa.org
- Institute of Electrical & Electronics Engineers
www.ieee.org (job postings too)
- International Assoc. for Technology in Education
www.iste.org

Related Area Employers

- Air Products
- Andesa Services
- Armstrong World Industries
- B. Braun Medical Inc.
- Brenntag
- Brentwood Industries
- Clark Associates
- Computer Aid Inc
- Deloitte US Delivery Center
- Fidelity Information Services
- Gateway Ticketing
- Hershey Entertainment & Resorts
- Kutztown University
- Lehigh Valley Health Network
- LeverX
- Listrak Inc.
- Liquid Interactive
- Lutron Electronics
- Neo Pangea
- Olympus
- Oracle
- Penn Interactive
- Penske
- PPL Electric Utilities
- SAP
- St. Luke's University Health Network
- UHS of Delaware, Inc.
- Versum Materials
- Zulily

Building Your Resume for a Career in Computer Science

Building a strong resume for your career field starts long before you ever start your job search. Employers want to hire graduates who not only have the necessary educational background but also have experience applying that knowledge.

Caitlin Computer-Science

ccomp000@live.kutztown.edu, 555-555-5555

TECHNICAL COMPETENCIES

- Operating Systems: Windows, Linux
- Programming Languages: C++, Java, Python
- Web Languages: HTML, JQuery, PHP

QUALIFICATIONS

- Fluent in Spanish and English
- Experience communicating with diverse populations
- Strong interpersonal and problem solving skills

Learn more about your field and develop the necessary skills for employment by gaining hands-on experience through clinical practice.

EDUCATION

B.S. Kutztown University of Pennsylvania
Major: Computer Science/Software Development
GPA: 3.73
Dean's List

Kutztown, PA
Dec 20xx

Fall 20xx-Spring 20xx

Related Courses: Web Programming, Java Programming, Programming Languages, Operating Systems, Software Engineering, Web-based Software Design and Development, Human Computer Interaction

INTERNSHIP & EXTERNSHIP EXPERIENCE

Computer Aid, Inc.

Programming and Development Intern

- Assisted with code development for tax processing system
- Tested and debugged various applications
- Created code documentation
- Presented group code summary project at annual company seminar

Allentown, PA
Spring 20xx

Student Extern

- Observed process of code development and troubleshooting techniques
- Attended "Tech Talk" focused on analysis and design for new applications

Sept 20xx

Utilize summer breaks to acquire valuable experience via volunteer or employment opportunities related to your major.

RELATED EXPERIENCE

Kutztown University ResNet Helpdesk

Student Support Staff Member

- Assist with Adware/Spyware and Trojan removal
- Perform anti-virus installation, system updates and system restorations
- Complete troubleshooting tasks related to data recovery and printer/scanner issues
- Aide in security procedures such as student password changes
- Communicate effectively with ResNet staff and students

Kutztown, PA
Fall 20xx-Present

CAMPUS INVOLVEMENT & PROFESSIONAL DEVELOPMENT

Member, Kutztown Technology Association

Member, Phi Kappa Phi National Honors Fraternity

Member, American Computer Scientists Association (ACSA)

Volunteer, Special Olympics, Kutztown University

Recipient, Career Success Certificate, Kutztown University Career Development Center

Recipient, Career Exploration Certificate, Kutztown University Career Development Center

Fall 20xx-Present

Fall 20xx-Present

Fall 20xx-Present

Spring 20xx & 20xx

Spring 20xx

Fall 20xx

Develop professionally through campus involvement and professional memberships. This illustrates responsibility, leadership abilities and time management skills.

WORK EXPERIENCE

Best Buy

Sales Consultant

- Answered technology-related inquiries regarding desktops, laptops and tablets
- Communicated with diverse staff to provide positive customer experience
- Resolved issues and complete customer returns

Wyomissing, PA
Summers 20xx-20xx