

**Bachelor of Science: Computer Science**

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

**Certificate: Cybersecurity Certificate, Scripting for Data Manipulation, Database Design & Implementation**

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, software/application developers, systems analysts, quality assurance analysts, and software support specialist, or go on to graduate school. Employers recommend one or more internships to be successful and competitive when entering this field.

**Career types associated with Computer Science**

*(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, and analyzing
- Proficiency in problem solving
- Ability to think logically and organize
- Proficiency with computers
- Aptitude for accuracy and detail
- Strong math background
- Ability to work under pressure

**Courses Computer Science 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](http://www.kutztown.edu/csit)  
[CSITDepartment@kutztown.edu](mailto:CSITDepartment@kutztown.edu)

**KU Majors related to Computer Science**

Mathematics, Physics, Communication Design, Applied Digital Arts, Criminal Justice

# FOUR STEPS TO SUCCESS

EXPLORE

DISCOVER

EXPERIENCE

IMPLEMENT

1<sup>ST</sup> YEAR

2<sup>ND</sup> YEAR

3<sup>RD</sup> YEAR

4<sup>TH</sup> 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 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](http://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  
 Data Scientist  
 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  
 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.  
 Quality Assurance Analyst  
 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 majors often find internships and employment in the following fields/industries.

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

# Handshake

Handshake is the primary online resource for preparing and connecting students and alumni with employers.

[www.kutztown.edu/handshake](http://www.kutztown.edu/handshake)

## Useful Websites for Computer Science 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](http://www.computerjobs.com)

Computer Work  
[www.computerwork.com](http://www.computerwork.com)

Dice  
[www.dice.com](http://www.dice.com)

IEEE  
[jobs.ieee.org](http://jobs.ieee.org)

Internet Society  
[www.internetsociety.org](http://www.internetsociety.org)

Just Tech Jobs  
[www.justtechjobs.com](http://www.justtechjobs.com)

Tech America  
[www.techamerica.org](http://www.techamerica.org)

LinkedIn Jobs  
[www.linkedin.com/jobs](http://www.linkedin.com/jobs)

Computer Science.org  
[www.ComputerScience.org](http://www.ComputerScience.org)

Production Hub  
[www.productionhub.com/jobs](http://www.productionhub.com/jobs)

### Professional Associations

American Society for Info Science & Technology  
[www.asist.org](http://www.asist.org)

Association for Computing Machinery  
[www.acm.org](http://www.acm.org)

Association of IT Professionals  
[www.aitp.org](http://www.aitp.org)

Association for Women in Computing  
[www.awc-hq.org](http://www.awc-hq.org)

Computing Research Association  
[www.cra.org](http://www.cra.org)

Computer Society  
[www.computer.org](http://www.computer.org)

Instrumentation, Systems and Automation Society  
<https://www.isa.org/>

Institute of Electrical & Electronics Engineers  
[www.ieee.org](http://www.ieee.org) (job postings too)

International Assoc. for Technology in Education  
[www.iste.org](http://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  
East Penn Manufacturing  
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  
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, [www.linkedin.com/in/caitlin](http://www.linkedin.com/in/caitlin), 555-555-5555

### PROFILE

Interested in working for a telecommunications company as a Computer Technician.

### 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

### EDUCATION

B.S. Kutztown University of Pennsylvania

Kutztown, PA

**Major: Computer Science**

Dec 20xx

GPA: 3.73

Dean's List

Fall 20xx-Spring 20xx

Study Abroad: Kutztown/Hanyang University

Summer 20xx

**Related Courses:** Data Structures, Network Programming, Programming Languages, Computer Science I and II, Operating Systems

### INTERNSHIP & EXTERNSHIP EXPERIENCE

Computer Aid, Inc.

Allentown, PA

**Programming and Development Intern**

Spring 20xx

- 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

**Student Extern**

Sept 20xx

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

### RELATED EXPERIENCE

Kutztown University [ResNet](#) Helpdesk

Kutztown, PA

**Student Support Staff Member**

Fall 20xx-Present

- 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

### CAMPUS INVOLVEMENT & PROFESSIONAL DEVELOPMENT

**Member**, Kutztown Technology Association

Fall 20xx-Present

**Member**, Phi Kappa Phi National Honors Fraternity

Fall 20xx-Present

**Member**, American Computer Scientists Association (ACSA)

Fall 20xx-Present

**Volunteer**, Special Olympics, Kutztown University

Spring 20xx & 20xx

**Recipient**, Career Success Certificate, Kutztown University Career Development Center

Spring 20xx

**Recipient**, Career Exploration Certificate, Kutztown University Career Development Center

Fall 20xx

### WORK EXPERIENCE

Best Buy

Wyomissing, PA

**Sales Consultant**

Summers 20xx-20xx

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

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

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

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