

**Bachelor of Science: Information Technology**

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

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

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 cybersecurity specialists, network managers or technicians, system administrators, database administrators or web developers. Employers recommend one or more internships to be successful and competitive when entering this field.

## Career types associated with 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, 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
- Ability to concentrate for long periods of time

## Courses Information Technology majors typically enjoy

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

## Common interests of Information Technology 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 Information Technology

Mathematics, Communication Design, Applied Digital Arts, Criminal Justice

# FOUR STEPS TO SUCCESS

## EXPLORE

### 1<sup>ST</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.

## DISCOVER

### 2<sup>ND</sup> YEAR

- 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.

## EXPERIENCE

### 3<sup>RD</sup> YEAR

- 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.

## IMPLEMENT

### 4<sup>TH</sup> YEAR

- 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

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](http://www.bls.gov/oco).

Application/Programmer  
Computer Programmer  
Computer Installation Specialist  
Computer Service Technician  
Computer Systems Analyst  
Cryptographer/Cryptologist  
Cybersecurity Specialist  
Data/Database Analyst  
Data Centre Technician  
Data Scientist  
Database Administrator  
Data Communications/Security Analyst  
Educator/Trainer  
Employee Relations Specialist  
End-User Computing Manager  
Engineering Lab Technician  
Environmental Technologist  
Information Scientist  
Information Technology Consultant  
Information Security Analyst

Information Technology Specialist  
Information Systems Developer  
Information Systems Manager  
Information Technology Manager  
Information Technology Specialist  
Internet Developer  
ISO Specialist  
LAN/Logistics Manager  
Machine Programmer  
Multimedia Developer  
Network Administrator/Manager  
Network Engineer  
On-Line Services Manager  
Operating Systems Programmer  
Operations Manager/Analyst  
PC Support Specialist  
Product Development/Line Manager  
Product Forecaster/Estimator  
Production Support Specialist  
Programmer: Engineering & Sci.

Python Developer  
Quality Assurance Analyst  
SAS Programmer  
Senior Analyst Programmer  
Software Application Integrator  
Software Development Specialist  
Software Engineering Specialist  
Software Package Developer  
Software Support Tech/Specialist  
Systems Administrator/Analyst  
Systems Consultant  
Systems Programmer  
Systems Technical Manager  
Technical Writer  
User Support Analyst  
UI Programmer  
Web Developer  
Web Designer

## Common Internship Sites and Employers

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

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 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](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)

U.S. Bureau of Labor Statistics  
<https://www.bls.gov/ooh/computer-and-information-technology/home.htm>

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

### Professional Associations

Agile Alliance  
<https://www.agilealliance.org/>

ASIS International  
<https://www.asisonline.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)

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

IT Association of America  
[www.itaa.org](http://www.itaa.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  
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 Information Technology

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.

## George Game Development

[ggame000@live.kutztown.edu](mailto:ggame000@live.kutztown.edu), [www.linkedin.com/in./george](http://www.linkedin.com/in./george), 555-555-5555

### PROFILE

Interested in working for a game development company as a Game Designer.

### 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 internships.

### EDUCATION

B.S. Kutztown University of Pennsylvania  
**Major: Game Development**  
GPA: 3.73  
Dean's List

Kutztown, PA  
Dec 20xx

Fall 20xx-Spring 20xx

**Related Courses:** Game Design and Prototyping, Two- and Three-Dimensional Game Development, Intro to 3D Modeling and Rendering, Fundamentals of Game Development

### INTERNSHIP & EXTERNSHIP EXPERIENCE

Amazon Corporate LLC  
**Game Designer Intern**

- Wrote a character design document that outlines internship goals
- Worked with the animation team to design animation keys
- Assisted a programmer with creating functionality for game characters
- Integrated animations into the game engine and scripted gameplay

**Student Extern**

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

Allentown, PA  
Spring 20xx

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