TECHNOLOGY

EXPLORING THE INDUSTRY

Key Roles

The following links can help you begin to consider a variety of roles that exist within Technology, including core tasks, associated lifestyle, educational requirements, job growth trends, salary information, and much more.

- Business Intelligence Analyst
- Computer Network Architects
- Computer System Analyst
- Computer System Engineer/Architect
- Database Administrators
- Database Architects
- Information Security Analysts
- Information Technology Project Managers
- Network and Computer Systems Administrators
- Quality Control Systems Managers
- Quality Control Analysts
- Software Developers, Systems Software
- Software Quality Assurance Engineers and Testers
- Web Administrators
- Application Developer
- Computer and Information Systems Manager
- IT Project Manager
- Web Administrator
- Database Architect
- Graphic Designer
- Software Developer
- Video Game Designer
- Web Developer
- Computer Programmer

Work Environments

One can tell that the roles in the technology industry vary greatly, so it only makes sense that the work environments of those very roles vary too! For example, software developers work for firms that deal in computer systems design and related services or for software publishers, computer programmers usually work in offices, most commonly in the computer systems design and related services industry, and information security analysts work for computer companies, consulting firms, or businesses.

Students looking for internships should look at computer companies, consulting firms and firms that deal with computer systems design as well as any organization that utilizes technology as a key component of their output.

Key Skills

While the roles in technology vary broadly, developing the following skills can help you as a more competitive candidate for jobs and internships:

- Analytical skills
- Problem solving skills
• Creativity
• Critical thinking skills
• Determination

More specifically, these technical skills are most sought skills in these sectors of the technology industry:

**Top Skills for Those Interested in Computer Science**

• SQL
• JAVA
• C#
• PYTHON

**Top Skills for Those Interested in Data Science**

• SQL
• R
• PYTHON
• Excel

**Top Skills for Those Interested Information Security**

• Application Security
• Biometrics
• Data Leak Prevention
• Disk and File Level Encryption Solutions

**Recommended Reading**

• [VAULT CAREER GUIDE TO INFROMATION TECHNOLOGY](#)
• [VAULT CAREER GUIDE TO COMPUTER SOFTWARE JOBS](#)
• [CAREER LAUNCHER: COMPUTERS AND PROGRAMMING](#)
• [How to Get a Cybersecurity Job in Three Charts: a Degree, a Certification, and a Clearance](#)
• [How To Get Hired -- What CS Students Need to Know](#)
• [How to Get a Junior DBA Job – Part 1](#)
• [How to Get a Junior DBA Job – Part 2](#)
• [How to Get a Junior DBA Job – Part 3](#)
• [How to Build a Successful Information Security Career](#)
• [Increase the Odds of Getting That Security Job](#)
• [Information Security Interview Questions](#)

Also check out the books in the Emory Career Center’s Library!

**FINDING OPPORTUNITIES AND GETTING INVOLVED**

**Jobs & Internships**

• [Handshake](#) - The Career Center’s main resource for connecting students to great job and internship opportunities
• [Career Shift](#) - Career Shift is the Career Center’s additional resource to help job seekers successfully navigate the published and hidden job market to find career opportunities
• [UCAN](#) - University Career Action Network (UCAN) provides access to domestic and international internships to students from 20 of the nation’s top institutions.
• **Vault** - In addition to using Vault to learn more about specific industries, companies, and receive career advice, Vault can also be used to identify internships and job opportunities.

**Fellowships, Scholarships & Research**

• **Handshake Fellowships** - The Career Center’s main resource for connecting students to great fellowship and research opportunities
• **Journal of Young Investigators** - Summer opportunities for those interested in Computer Science

**Scholarships**

• Betty Stevens-Frecknall Scholarship
• Dave Sanders Memorial Scholarship
• Kevin Jetton Service Scholarship
• William R. Reaugh Scholarship
• Robert Half Technology/AITP Student Scholarship

Visit the [Emory University Office of National Scholarships & Fellowships](#) to learn more about these programs and other opportunities.

**Research Opportunities**

Connect with faculty in the Department of Math and Computer Science to inquire about research opportunities. Also visit the [Emory University Office of Undergraduate Research](#) to discover other research programs.

**Further Education**

Coding Academies are a great way for one to further their education in coding as well as getting hands-on experience with what coding looks like in the real world.

Here are some coding academies in Atlanta:

• **The Iron Yard**
• **Coding Bootcamp-Georgia Tech**
• **Digital Crafts**
• **General Assembly**

Getting certifications in Information Security can definitely boost your resume and are sometimes required in order to get hired. Here some certifications one can obtain.

• **CISSP** – The Certified Information Systems Security Professional. If you want to work at the Department of Defense, obtaining your CISSP certification is a requirement. And it carries a lot of weight beyond the Dept. of Defense as well. By getting your CISSP certification you open the door to higher level positions and the possibility of increased pay.
• **CISM** – Certified Information Security Manager. This certification focuses on governance, risk management and compliance.
• **CISA** – Certified Information Systems Auditor. This certification focuses on auditing, controlling, monitoring and assessing information systems and can add a significant pay boost to a cyber security professional’s annual salary.
• **GIAC** – Global Information Assurance Certification. This certification focuses on specialty hands-on technical capabilities such as intrusion detection and forensics among others.
• **CEH** – Certified Ethical Hacker. For entry-level applicants, a CEH certification can be a great way to land your first job or get you into an entry-level position at your top choice company.

Databases certification can also help boost your resume. Here are some popular ones! Do not rely solely on certifications to get your foot in the door. There should be a fair amount on experience and a few certifications based on your interests..
BM Certified Database Administrator for DB2
MTA DB
MCSA: SQL Server
MCSE: Business Intelligence
MCSE: Data Platform
Oracle 12c Database Administrator
SAP HANA
Oracle Certified Professional, MySQL 5.6 Database Administrator

Campus Organizations & Volunteering

Campus Resources:
- HackEmory Facebook page
- OrgSync
- Active database of all Emory campus organizations.
- Some clubs to take note of:
  - Association for Women in Science
  - Data Science Club
  - Emory Women in Computer Science
  - Hack Emory
  - Robotics Club

Beyond Campus:

The following Professional Associations have chapters in Atlanta.
- Association of Information Technology-Atlanta
- ATP
- Information Security Systems Association-Metro Atlanta
- Technology Association of Georgia

Recruiting at Emory

CS and Math/CS Graduates of the previous three years have landed positions at the following companies:
- Amazon
- Accenture
- Apple
- AT&T
- Athenium
- Bain & Company
- Bank of Montreal
- EPIC
- EY
- Fast Enterprises
- Fidelity Investments
- Flatiron Health
- Google
- Hearsay Social
- IBM
• J.P. Morgan
• Kakao Friends
• Kibo Commerce
• KPMG
• Macedon Technologies
• MobiSocial
• Moodys Analytics
• Overlay Technologies
• Palentir Technologies
• Possible Mobile
• PwC
• Red Clay Consulting
• Redfin
• Scalable Press
• SimplePart
• Snap, Inc.
• Stanley Black & Decker
• Studypool
• SunTrust Bank
• Teach for America
• The Home Depot
• Vanguard
• Verizon
• Visa

Working Abroad

• GoinGlobal - Find information about working, interning and volunteering abroad. Contains Country Guides with specifics about the job search, helpful advice for life and work, and job/internship search database by country.

**PREPARING TO APPLY**

**Resumes & Cover Letters**

**Resumes**

The primary purpose of a resume is to obtain an interview. A good resume connects your experience to your desired job. Support your candidacy by highlighting relevant skills – e.g., JAVA, C languages, SQL, Python etc. Include any activities, jobs, or internships directly related to technology. Did you create an app? Were you in an upper level Computer Science? Did you create your own website? Add less-related activities only if they are outstanding. Be selective. Your resume is a selling tool, not a life history. Keep it neat, clear, and precise. Try to make it unique and interesting but not gimmicky.

**Resume Writing Support**

For additional help writing resumes, schedule an appointment to meet with a career advisor at The Career Center by calling 404-727-6211.

Additional support with drafting and critiquing resumes, as well as basic instructions on grammar, style and punctuation can be obtained by appointment at the Emory College Writing Center.

**Cover Letters**
A cover letter parallels with your resume. Together they create a first impression of you. Your cover letter should work as a connecting tool between you and the company you’re writing to. Don’t let it read like a form letter. Instead, include real knowledge of the company, its work, and its position. Tell the company why you are interested in them and why you think you’d be right for them. And then make sure that you are prepared to discuss in your interview whatever you say in the cover letter. And remember, you’re qualifications are based on your technical skills, analytical skills, and critical thinking skills. Watch spelling, grammar, and typing. Most important of all, be clear, crisp, and brief.


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Interview Preparation

Be articulate. Be self-confident, think carefully and critically and be enthusiastic. But relax and do it naturally. Don’t try to recite everything you know. Remember, someone is interested enough in your background to invest 30 minutes or more in you. That person wants you to succeed.

Interview preparation will vary for the various jobs in the technology industry. Regardless of the job you’re interested in, you should always know information about the company you’re interviewing with and the skills required for the position you’re interviewing for. If you’re interested in jobs in computer science, you might want to practice coding for coding interviews and conceptual knowledge. Glassdoor is great resource for the looking at previous asked questions. If you’re interested in jobs in information security look at these questions. It is also a great idea to read up on news in Information Security and brush up on key concepts in information security. This demonstrates that you are up to date with current events and you know what concepts are relevant.


Interview Tips and Sample Questions

The best way to prepare for a coding interview is the practice your coding. Here are some resources to practice your coding skills.

- https://leetcode.com/
- https://pramp.com/
- https://www.hackerrank.com/
- www.careercup.com
- http://www.geeksforgeeks.org/
- http://www.crazyforcode.com/
- Glassdoor is also a good resource for looking at past interview questions!

Portfolios & Online Presence
It is a great idea to show the work you have completed either in your coursework or free time. GitHub is a great way to development platform inspired by the way you work. From open source to business, you can host and review code, manage projects, and build software alongside millions of other developers. Creating an application on your own or with friends, creating a website, etc. can boost your resume and shows your interviewers what you’re capable of.

**MEETING PEOPLE, MAKING CONNECTIONS**

How to find alumni in key roles, arrange an informational interview, and connect through networking nights, career fairs, professional associations, conferences and more.

**Alumni Profiles**

- Henry Chen, '17 CS and Math
- Mengbo Li, '15 CS
- David Dvorak, '15 CS
- Melissa Mendoza, '16 CS
- Patrick Cook, '11 CS

**Tools to Connect**

For advice about networking through Informational Interviews, at networking nights and career fairs, click [here](#).

- [LinkedIn.com](#) - Advice for creating a profile, job seeking, and networking etiquette using LinkedIn.com

**In partnership with Emory Alumni Association:**

- [Emory Connects](#) - The Emory Online Community’s most recent upgrade is an exclusive mobile and online networking platform where you can guide students and find alumni professionals in your area. The knowledge you exchange will help uplift the next generation of world leaders.
- [Career Discovery Days](#) - First and second year Emory students of all colleges and schools are invited to participate in Emory Connects: Career Discovery Days! This program is designed to help Emory students learn what “it is really like” to work in a particular job, industry or organization by providing the opportunity to shadow a professional for a day. This will be a great way to explore various career options and build professional connections.
- [Emory Alumni Chapters](#) - Find a chapter near you, in the U.S. or abroad!

**Events on Campus**

- [Emory Fall and Spring Career Fairs](#)
- [High Five Networking Series](#)
- Handshake On-Campus Recruiting and Events Calendar
- [Sign up to receive Creative cluster newsletter](#)

**Professional Associations**

A professional association is an organization of people who have similar career interests. These membership-based organizations often offer a reduced rate for students that allow access to the many resources they provide. Professional association websites can also offer job/internship databases as well as opportunities to find mentors or other contacts.

- [Association for Computing Machinery (ACM)](#): Delivers resources that advance computing as a science and a profession. It offers training, resources and networking for members as well as a job board.
- [Association of Information Technology Professionals (AITP)](#): Professional development opportunities, networking and job connections. Student membership is available.
• **Foundation for Information Technology Education(link is external):** With the mission of promoting professional development of individuals in information-systems industry, this organization provides scholarships and coordinates conferences.

• **NAMEPA(link is external):** A national network of educators and representatives from industry, government and nonprofit organizations who share a common commitment to improving the recruitment and retention of African Americans, Hispanics and American Indians earning degrees in engineering. Offers scholarships, conferences and resources.

• **National Science Foundation (NSF)(link is external):** An independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..."

• **National Society of Black Engineers (NSBE)(link is external):** One of the largest student-run organizations in the country and is active both regional and national level. The website offers job database and resume posting service for members.

• **Society of Hispanic Professional Engineers (SHPE)(link is external):** SHPE is the Source for Quality Hispanic Engineers and Technical Talent providing professional development opportunities, and promoting academic excellence. The website offers scholarships to current students.

• **Society of Women Engineers (SWE)(link is external):** Empowers women to succeed and advance in the field of engineering. The site includes resume posting service and job listings for members, as well as scholarship opportunities.

**Diversity Resources**

• **Hire US: Connecting a Diverse Workforce with Inclusive Employers** - An event designed to connect Emory students who have historically faced under representation and/or discrimination in work environments and hiring processes with employers committed to building and supporting a diverse and inclusive workforce. Sponsored by the Emory Career Center, Office of Accessibility Services and departments of the Belonging & Community Justice area of the Center for the Advancement of Student Agency and Advocacy: Center for Women; Office of Lesbian, Gay, Bisexual, & Transgender Life; and Office of Multicultural Programs & Services.

• **Emory Alumni Association Affinity Groups** - Connect with a variety of populations and like-minded people through special events tailored to specific interests. The professionalism of the industry.

• **NACE LBTQ Resources**