

COMPUTER SCIENCE | INDUSTRY ROADMAP

Career Paths and Desired Skills

Companies which utilize technological talent range from hardware manufacturers to bio-technology startups and financial companies. As technological innovation becomes more accessible, the line between tech and traditional industries becomes increasingly blurred. Careers in technology might include software engineering, data science, UI/UX design, product management, research, business development, sales, marketing, operations, customer relations or recruiting.

Sector & Entry Level Role

Key Functions

Desired Skills

SOFTWARE ENGINEERING, SOFTWARE DEVELOPER

Software engineering is a broad field which encompasses a variety of different specializations. Software engineers use programming to create applications or systems that fulfill the need of a user. They develop, design, test, and maintain these applications or systems.

- Analyze user needs
- Structure and create technological applications or systems
- Develop algorithms
- Utilize programming languages

- Programming ability
- Iterative, logical, and structured thinking
- Problem solving
- Attention to detail

DATA SCIENCES, JUNIOR DATA ANALYST

Data scientists analyze and interpret large quantities of data to solve complex problems. In the technology industry, data scientists are often hired by companies to help develop new solutions or practices to business challenges. Data scientists have specialized, quantitative skill sets and often have additional expertise in programming.

- Extract large quantities of data from different sources
- Utilize skills to analyze data
- Create predictive models
- Interpret data to provide actionable feedback

- Problem solving
- Quantitative ability
- Detail-oriented
- Data-related skills
- Specialized knowledge

PRODUCT MANAGEMENT, PRODUCT MANAGER

Product managers guide the development of a product and lead the cross-functional team responsible for that product. These roles sit at the intersection of technology, business, and design and serve as the liaison between the team creating the product and other members of the company.

- Lead the trajectory of a product from beginning to end
- Coordinate engineers and designers
- Act as liaison with other teams in the organization, such as marketing
- Create and manage timelines and deadlines

- Strong communicator
- Creativity
- Interpersonal skills
- Analytical thinking
- Strategic thinker
- Collaborative

IT SERVICES, IT TECHNICIAN

IT Technicians provide support for customers experiencing difficulties with both hardware and software. IT Technicians often have detailed expertise of the systems and machines for which they are responsible. A customer service mindset is important, since IT Technicians are often embedded as support in larger, non-technical organizations.

- Provide one-on-one assistance to customers experiencing software and hardware problems
- Trouble-shoot problems with technology
- Create documentation for non-technical staff

- Customer service skills
- Collaborative
- Trouble-shooting mentality
- Experience with both software and hardware
- Tech communication skills

USER EXPERIENCE, USER EXPERIENCE DESIGNER

User experience designers are responsible for determining and guiding how a product (such as a website or service) feels to the user. They may conduct user tests or interviews to determine how a user engages with the product and then make design-oriented, big-picture recommendations or alterations based on their findings.

- Provide user-oriented perspective to a team of engineers
- Produce storyboards and wireframes of the workflow of a product or service
- Engage directly with users and focus groups

- Creativity
- Qualitative user research
- Design talent
- Big-picture thinker
- Visual communication

BUILDING EXPERIENCE FOR CAREERS IN COMPUTER SCIENCE

Career Advancement offers a number of events and resources to help prepare you for a career in computer science:

EXPLORE

- Treks and site visits to top tech employers in Chicago, San Francisco, New York, Seattle, and more
- Panels and roundtables with alumni in desirable and unique technology careers
- On-campus, informal tech talks with employers and recruiters about crucial industry trends

ENGAGE

- One-on-one coaching and weekly communications from industry experts
- Skills-based programming through weekly Technical Interview Workshops and interactive employer events
- Networking and recruiting preparation events featuring employers in the technology industry: California Product and Technology Forum, University of Chicago Career Fair, and Grace Hopper Women in Computing Celebration
- Hackathons such as Uncommon Hacks and online skill-building training through platforms such as Lynda.com

APPLY

- Careers in technology often recruit on accelerated timelines, requiring students to begin their recruitment process for companies with formal recruitment in the summer and early fall for positions with start dates the following year
- UChicago Career Advancement provides summer programming and support to accommodate this early recruitment cycle, including instructional webinars
- Networking resources to access the deep network of alumni spanning industries and locations, such as the WISR platform

A strong resume or a career in technology might include the following:

- Technical projects, including projects completed independently or as part of an open-source project or hackathon
- A link to your GitHub, a web hosting service often used for code-based projects
- The programming languages you are familiar with and your proficiency level in them
- Relevant academic positions, including research in computer science or teaching assistant positions

REPRESENTATIVE EMPLOYERS

These employers actively recruit UChicago students for technical roles!

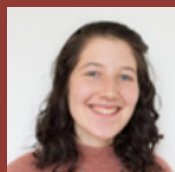
Work with Career Advancement to stay current on recruiting timelines

Google
Lyft
Epic
Tesla
Amazon

Civis Analytics
The Climate Corporation
Lumere
Capgemini
Houzz

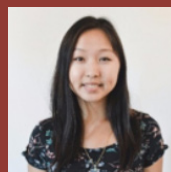
Goldman Sachs
Kleiner Perkins
NowPow
Uptake
IMC

Facebook University
Google Engineering Practicum
Explore Microsoft Program
EA (Electronic Arts) Pathfinder



Sherry Shenker (AB '18)

- UChicago Careers in STEM
- Full-Time: Applied Data Scientist, Civis Analytics
- Prism Consulting Group, Splash! UChicago



Rebecca Gian (AB '18)

- Trott Business Program
- Full-Time: Software Engineer, Facebook
- UChicago Careers in STEM Career Peer Advisor