



Careers in IT Support and Cybersecurity

...and other IT Careers...



What is Technology

- Who here uses a phone, plays games, or watches YouTube?
- Visited a store, restaurant, or health care facility?
- Attend school?
- Guess what? You're already using IT every day!

Let's explore how you can turn that into a career.



What is Information Technology Support?

- Information Technology Support
- Role: Help people with computer/network issues
- Tasks: Troubleshooting, setting up new equipment, fixing software bugs.
- Skills: Problem-solving, patience, communication, curiosity.
- Why it's cool: You're the hero! You fix things, you learn constantly.



What is Cybersecurity?

- Cybersecurity
- Role: Protect digital information and systems from attacks.
- Threats: Hackers, viruses, malware, phishing, and data breaches.
- Skills: Analytical thinking, vigilance, ethical mindset, staying updated.
- Why it's crucial: Protecting your privacy, money, and national security.



Why IT Support or Cybersecurity?

- Huge demand for technology professionals
 - Largest growth sector in employment opportunities
- Cybersecurity breaches cost billions
 - Work for Law Enforcement or Private Firms
- Nearly every job uses technology! IT Support is needed for all companies.
- Over 3.5 million unfilled IT and cybersecurity jobs
- Technology jobs have the lowest unemployment

How many Technology Jobs?!

Global Employment Outlooks Across Key Industry Sectors

Businesses in the IT industry reported the brightest outlook, improving by two percentage points since the previous quarter and the same time last year.



*Government or Public Service; Not for Profit/NGO/Charity/Religious organization; Other Industry; Other Transport, Logistics & Automobiles Sub-Industry; Educational Institutions; Agriculture & Fishing



Real World Examples

Information Technology Support

- Fixing school Wi-Fi
- Designing and installing new computers, network hardware, and systems
- Taking calls from users and resolving their issues
- Managing hosting websites and email systems

Cybersecurity

- Protecting game accounts
- Ethical Hacking - finding bugs in apps
- Finding Cyber Criminals (Police and FBI)
- Protecting information release for a new product



Career Paths

Information Technology Support

- IT Service/Help Desk
- Fixing hardware/software
- System Admin
 - Network, Wireless, and Internet
 - Servers, storage, and cloud Management
- Designing IT systems

Cybersecurity

- Network Defense
- Ethical Hacking
- Security Auditing
- Security Event Analysis
- Data Breach Investigation



Career Areas

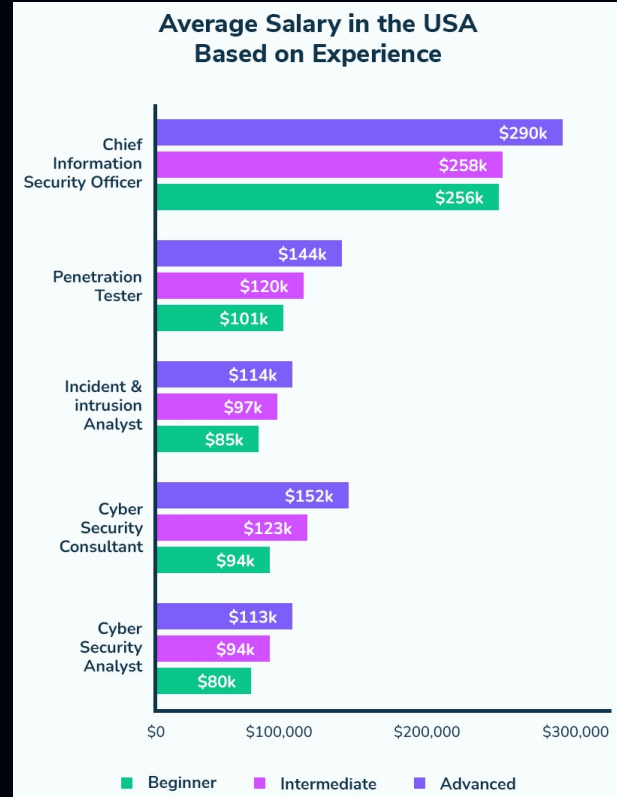
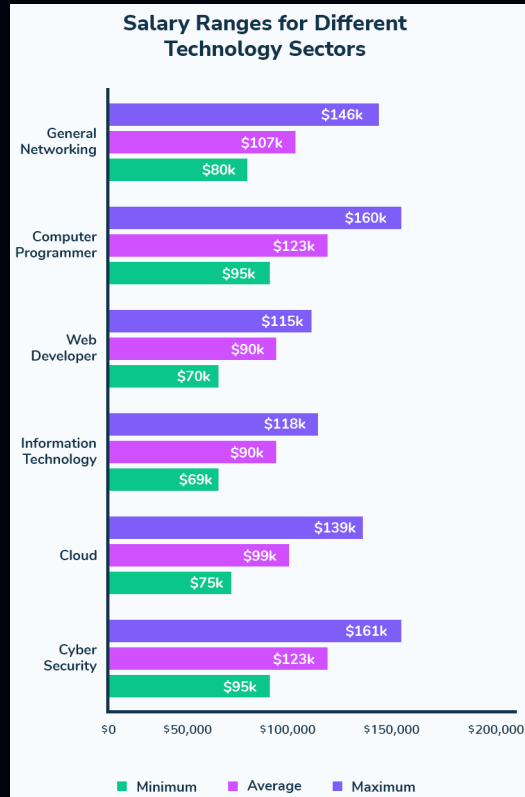
Information Technology Support and Cybersecurity are needed:

- All companies
 - Small Companies – more broad knowledge for a lot of systems
 - Large Companies – specialize into a specific area
- Healthcare
- Government
- Schools, Colleges, and Universities
- Utility and Service Companies
- Communication Companies
 - Cellular, internet (ISP), radio, etc...
- Independent Contractor
- Contracted Technology Providers

Career Advancement Opportunities

- Service Desk → Network/Server Administrator → Network/Server Engineer → IT Manager → IT Director/CTO/IT Company Owner
- Ethical Hacker/Pen Tester → Certified Cybersecurity Compliance Auditor
- Cyber Analyst → Security Engineer/Cybersecurity Consultant → CISO

Will I be paid?



How to get started

- Join tech clubs or coding camps.
- Earn certifications: CompTIA, Cisco, etc...
- Explore platforms like TryHackMe, Codecademy.
- CyberPatriot.org: compete & learn
- CISA & NetSmartz: free content
- Expore Online
 - YouTube: Computerphile, Hacker101
- Education:
 - Self, Certificates, or Degree

Password Strength Game

Password

- 123456
 - Weak – 1 Second
- Qz8!r#T2
 - strong but crackable – Why?
- Use passphrases or password managers!
 - PurpleGiraffe@98Bananas!

Scan to play and test yours:





Encryption Example

Two locks Encryption Example

Fun Facts!

- FBI hires teen interns
 - (CSN and UNLV have local intern programs for students)
- IT Companies have their own IT Professionals (Google, Facebook, etc...)
- Hackers helped NASA fix flaws
- WannaCry Ransomware Attack Mitigation: During the devastating WannaCry ransomware attack in 2017, ethical hackers collaborated globally to analyze the malware and discover a "kill switch" that effectively halted its spread, saving countless organizations from falling victim to the attack.
- IT and Cybersecurity Professional earn \$90k+/year on average midway through a professional career path.



Beyond Support & Security - Other Cool IT Fields

- Legal: IT Compliance and Copyright Attorney.
- Software Development: Creating apps, websites, games.
- Data Science: Finding patterns in large amounts of data.

Questions?

- Questions about tech jobs!
- Share what interests you!
- How can we help you start your journey?

Thank you! Keep Learning!

- You can be the next line of support and defense.
- Explore. Break. Learn. Fix.
- "The best way to predict the future is to invent it."

Scan for Handout

