



Source : <https://www.futureoftech.org/cybersecurity/6-careers-in-cybersecurity/>

Hackers are always finding new ways to access our digital data. Cybersecurity is the practice of safeguarding this data and the systems we use to store and transmit it.

Cybersecurity refers to the tools and techniques used to protect computerized devices, the data they contain, and the functions they perform from people who want to steal, damage or misuse them. This includes normal features of modern life that you deal with every day, like the passwords that protect your phone, your computer and your various online accounts, as well as practices and technologies you may not know much about, such as firewalls, two-factor authentication and antivirus software.

Skills Required to Work in Cybersecurity

People who work in cybersecurity need good instincts for intelligence gathering, puzzle solving and reconnaissance.

They have to be able to imagine how data is vulnerable to attacks, and they must develop thoughtful, thorough plans to keep that data secure. Above all they have to stay laser-focused on the goal of cybersecurity: protecting information that people and companies keep on their computers and stepping up to save the day if a data breach occurs.

Technology is only one piece of the puzzle. These experts also have to understand intricate processes—and they need to know how to communicate, too. Cybersecurity experts protect an organization's hardware and software, develop risk-analysis plans and figure out how to meet legal requirements. Most importantly, cybersecurity experts educate people on privacy and how to keep their data protected. Teaching people how to protect their digital assets is one of the more challenging aspects of cybersecurity, but it's also the most effective way to keep digital data safe.

Banks, hospitals and major companies all work with cybersecurity experts because those organizations keep huge amounts of data on file: Social Security numbers,



Career spotlight

Career in Cybersecurity



credit card details, home addresses, intellectual property, photos and videos, health and financial information, and more. Clearly, there's a lot at stake. Once hackers have infiltrated a computer system and gained control of that data, they can sell the personally identifiable information on the dark web, demand a ransom or make it public.

Staying a step—or a mile—ahead of attackers requires logic, tenacity and the ability to take on cagey challengers.

Security Administrator

Cybersecurity starts at the ground level, where security administrators manage security solutions, monitor networks and roll out patches

. Everything you need to know in this job is covered by Security+, a certification designed to set people up to succeed in this technical role.

Education requirement: CompTIA Security+ certification with experience

Also accepted: Bachelor's degree in information technology, information systems or computer science

Annual salary: \$55,000

Security Specialist

The next step in cybersecurity comes with management responsibilities. Security specialists delegate jobs to others and wield control of the tech tools used to deploy security measures. They also advise people outside the tech department about issues related to IT.

Education requirement: CompTIA Security+ certification with experience, or CompTIA Cybersecurity Analyst certification with experience

Also accepted: Bachelor's degree in information technology, information systems or computer science



Career spotlight

Career in Cybersecurity



Annual salary: \$58,490

Information Assurance Technician

Information assurance technicians maintain, process and troubleshoot computers for the military. U.S. Department of Defense (DoD) requirements mean many information assurance specialist and technician roles require CompTIA Security+ certification. As your role grows, the DoD will likely require the tough and technical CompTIA Advanced Security Practitioner certification. Civilians consulting on military contracts and working in networks that require clearance could also be required to have CompTIA Security+ or CompTIA Advanced Security Practitioner certifications.

Education requirement: CompTIA Security+ certification to start; CompTIA Advanced Security Practitioner certification to advance

Annual salary: \$53,820

Information Security Analyst

Information security analysts do high-level network monitoring and use analytics tools to determine network vulnerabilities

and how to respond to threats. Professionals who work in this role—the fastest-growing segment of the cybersecurity job market—use security information and event management tools to untangle the data from complicated log files and put it in context so the security team can develop plans of action. CompTIA's Cybersecurity Analyst+ certification teaches everything someone in this role needs to know.

Education requirement: CompTIA Cybersecurity Analyst certification with experience, or CompTIA Advanced Security Practitioner certification with experience

Additional requirements: Companies will likely require a bachelor's degree in information technology, information systems or computer science, unless you've already logged years of cybersecurity experience.

Annual salary: \$92,600



Career spotlight

Career in Cybersecurity



Senior Cybersecurity Architect/Engineer

Senior cybersecurity architects (also known as cybersecurity engineers) design, build and execute robust security plans. At this high level in cybersecurity, you'll perform risk analysis and security checks, develop plans for responding to breaches and cyberattacks, estimate the plans' costs and then build them or direct your security team to see it through. Cybersecurity experts at this level should prep for the CompTIA Advanced Security Practitioner exam.

Education requirement: CompTIA Advanced Security Practitioner certification plus experience

Additional requirements: At this level, companies will require a bachelor's degree in information technology, information systems or computer science (or years of cybersecurity experience). Annual salary: \$162,641

