



CYBERSECURITY ANALYST

JOB DESCRIPTION

The computerized data that organizations and government agencies hold needs constant protection. With a high-level knowledge of computing and networks, cybersecurity analysts work toward preventing counter-security breaches by identifying and fixing weaknesses in the computer code and hardware of an organization.



SALARY

Newly qualified analyst ★★★★★
Senior consultant ★★★★★

INDUSTRY PROFILE

Increased reliance on computer systems has seen a growing demand for skilled cybersecurity analysts • Better paid sector than other areas of Information Technology (IT)

AT A GLANCE



YOUR INTERESTS Information Technology (IT) • Software engineering • Database design • Computer networks • Mathematics • Physics • Law



ENTRY QUALIFICATIONS A degree in software engineering or computer science is required. A higher qualification in cybersecurity is useful.



LIFESTYLE Regular office hours are the norm, but cybersecurity analysts often work extra hours if there is a threat to their employer's system.



LOCATION This job is normally office-based, but working remotely from home is possible in some jobs. Some travel to visit clients is required.



THE REALITIES Cybersecurity analysts must keep up to date with new systems, technologies, and threats. The high level of responsibility can be stressful.

▼ RELATED CAREERS

- ▶ **SOFTWARE ENGINEER** *see pp. 118–119*
- ▶ **NETWORK ENGINEER** *see pp. 124–125*
- ▶ **POLICE OFFICER** *see pp. 240–241*
- ▶ **CYBER-CRIME LAWYER** Specializes in the legal aspects of data security and online crime.
- ▶ **IT CONSULTANT** Advises businesses on how to improve their IT infrastructure. An IT consultant needs an extensive knowledge of databases, IT networks, and software.

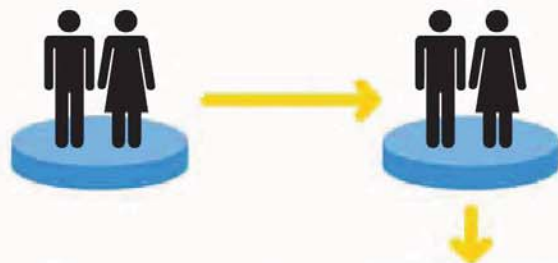
Over 10 million
cyber attacks
are reported
every day, and
the number
is growing.

CAREER PATHS

Most entrants have a relevant computing degree. With experience, cybersecurity analysts can move into a management role or choose to specialize in areas such as research into new threats or computer forensics.

TECHNICIAN If you are a computing enthusiast with good IT skills, you may be able to find work as an IT technician or intern while studying for your bachelor's degree.

GRADUATE You will usually need at least an undergraduate degree in a computing, security, or IT subject to enter this field.



CYBERSECURITY ANALYST

Working under one of a company's chief executives, you will check systems for vulnerabilities, monitor unusual activity on networks, install security software, and take other measures to neutralize the threats of a cyber attack.



SECURITY TRAINER Trains staff and network users on how to keep valuable electronically stored data secure and confidential.



FORENSIC ANALYST

Examines computers, smartphones, and other digital devices to identify and investigate their contents for illegal material. Forensic analysts typically work with the police and other law enforcement agencies.



RISK MANAGER

Analyzes security risks that could potentially affect an organization's IT systems. They also work with senior management to update and organize systems to ensure their reliability.



SECURITY INVESTIGATOR

Conducts research to identify the location, motives, and methods of cyber criminals, often working with the authorities to prevent illegal activities and provide evidence in prosecutions.



PEN TESTER

Tests the resistance of computer networks by attempting to penetrate their defenses. Identifying gaps in security that could be exploited by malicious computer hackers and ensuring that these gaps are closed are important parts of the job.

SKILLS GUIDE



Creative thinking to spot new ways in which systems could be attacked.



Logical and analytical skills to understand how systems have been put together.



The ability to think quickly and to respond to threats to avert any potential damage.



A thorough knowledge of a variety of computer-programming languages, networks, and areas of vulnerability.



Attention to detail when checking for fraud and while conducting research.