### Cyber Security Specialists

Cyber security is fast becoming one of the most important roles in the tech sector as cyber criminals and hackers become ever more sophisticated.

Any computer connected to the internet is vulnerable to cyber attacks. Cyber security, or IT security, is the technique used to protect computers and networks from criminal intrusion. Specialists in cyber security are among the most sought-after professionals in the tech sector as businesses and governments seek to fight off an increasingly daring and ruthless cohort of global cyber criminals and hackers. Skilled and dedicated security specialists work in this field that demands a mix of artistry and technical expertise. They need to be constantly one step ahead of the hackers and organised criminals behind a new crime wave.

There is increased potential for career progression, especially in larger organisations and financial service providers. There is also scope for experienced security professionals to go into business for themselves as consultants. [You can find out more about cyber security as an area of work, from an industry expert, here](https://targetjobs.co.uk/career-sectors/it-and-technology/advice/438736-cyber-security-graduate-area-of-work).

Typical duties include:

* seeking to build in security during the development stages of software systems, networks and data centres
* looking for vulnerabilities and risks in hardware and software
* finding the best way to secure the IT infrastructure of an organisation
* building firewalls into network infrastructures
* constantly monitoring for attacks and intrusions
* when the cyber security specialist finds a potential threat or attempted breach, closing off the security vulnerability
* identifying the perpetrator and liaising with the police if necessary

### Key skills for cyber security specialists

* Strong IT skills and knowledge including hardware, software and networks
* Meticulous attention to detail
* Ability to use logic and reasoning to identify the strengths and weaknesses of IT systems
* A forensic approach to challenges
* A deep understanding of how hackers work and ability to keep up with the fast pace of change in the criminal cyber-underworld
* Ability to seek out vulnerabilities in IT infrastructures