Forensic Computer Analyst

Forensic computer analysts use specialised methods and techniques to recover and examine data from computer systems or digital storage devices. They present their findings, which can then be used as evidence in civil or criminal prosecutions involving computer-based, or cyber crime.

They are also known as cyber security professionals.

The Work

You would use a variety of specialist computer programmes and methods to analyse and search for data on devices such as mobile phones, tablets or laptops or desktop computers.

You could be:

- securing the system's hardware or software to avoid further tampering, and copying its files
- recovering damaged or deleted files, or accessing hidden, protected or encrypted files that hide a person's or organisation's identity
- analysing file data such as emails or metadata (information embedded in a file describing how and when it was created)
- examining data from mobile phones and satellite navigation systems to pinpoint locations
- following electronic data trails to reveal links between individuals or groups
- recording accurate detail on every stage of your investigation, including the sources of any data and images
- writing a technical report based on your findings
- giving evidence in a court case
- keeping up to date with evolving cyber crime methods and developments in IT forensic technology.

You could be involved in a wide variety of investigations including; industrial or commercial espionage (spying), commercial fraud, theft of undisclosed or confidential information by company employees, possession of illegal images or even bankruptcy cases.

Pay

The figures below are only a guide. Actual salaries may vary, depending on:

- where you work
- the size of the company or organisation you work for
- the demand for the job.

Starting salaries can be in the region of £25,000 to £30,000 a year. With experience this can rise to between £30,000 and £50,000 a year. Senior analysts can earn up to £80,000 a year or more.

Conditions

- You would work in an office or in a computer lab, with normal working hours.
- You normally work overtime depending on how complicated an investigation is, or to meet a deadline.
- Most jobs are usually permanent although there is contract work available for specific projects or cases.
- You would be dealing with highly sensitive or confidential data or images, depending on the type of case you are investigating.
- You may have to travel to meetings, or to access networks or computers onsite to obtain data for analysis.

Getting In

There are several routes into this career including a degree or qualification in an IT-related discipline, or a background in IT systems.

- Abertay, Edinburgh Napier, Glasgow Caledonian, Heriot-Watt, Robert Gordon and the West of Scotland universities all offer relevant degree (SCQF Levels 9-11) courses in computer forensics, cyber security or ethical hacking. Entry requirements are usually 4 Highers including Maths or Computing Science.
- Some degree courses include an industrial placement so that you gain direct experience on the job. Many employers prefer entrants to already have substantial experience.
- Postgraduate (SCQF Level 11) courses in computer forensics are also available at many universities. For entry you would normally require a good Honours degree in a relevant subject, or equivalent degree with relevant experience. Check individual institutions' websites for details.
- You might be able to get in through a Graduate Apprenticeship in Cyber Security. This is available at two levels, SCQF Level 10 and 11. For Level 10 you for normally require 4 Highers including Maths and Computing Science. For Level 11 you would require a relevant Honours degree, or the Level 10 Apprenticeship. Check the apprenticeship.scot website for details.
- You could enter through a Modern Apprenticeship in Digital Technology: Cyber Security at SCQF Level 6, or the Technical Apprenticeship at SCQF Level 8. You will learn about the threats to computer networks and systems from criminal cyber-attacks and how they can be prevented.
- You could start at entry level as an IT support technician, developer or network engineer with an NC (SCQF Levels 4-6), HNC (SCQF Level 7) or HND (SCQF Level 8) in Cyber Security. You could work your way up by taking further training and qualifications.
- A driving licence may be handy as you could travel to different sites to extract data for investigation.
- You need to be willing to move to other areas of the UK.
- You will undergo security checks and vetting procedures.

Prospects are good in this line of work, with major employers including the police forces and law enforcement agencies, and government departments and agencies, such as the Serious Fraud Office, The Security Service (MI5) and the Secret Intelligence Service (MI6). Private employers include IT security and specialist forensic computing companies, as well as banks and financial organisations.

You can find jobs advertised on specialist employment websites such as CyberSecurityJobsite.com.

What Does It Take

You need to have:

- excellent problem solving skills

- patience and a methodical way of working
- an enquiring mind
- good written communication skills for reporting your findings.

You need to be able to:

- pay close attention to detail
- spot patterns or trends across large amounts of data
- work on your own initiative
- be impartial and objective
- respect confidentiality.

Training

- As a Graduate Apprentice you would work and study towards the BEng Hons Cyber Security (SCQF Level 10) or Masters degree in Cyber Security (SCQF Level 11).
- For the Modern or Technical Apprenticeship in Digital Technology: Cyber Security, you would study towards the Diploma in Digital Technology: Cyber Security at SCQF Level 6 or 8.
- You will need to keep up to date with the latest developments in cyber crime, and learning new investigative methods and software. Cyber crime is an ever changing and fast moving area.
- You would learn scripting languages and database development (such as Java, C#, WPF, MySQL, Oracle) as well as operating systems, such as Windows, iOS (Apple Macintosh), Linux, UNIX or DOS, and networking.

Getting On

- There are many industry related qualifications and certificates you can take while you are working, including postgraduate courses that may allow you to focus on an area of interest.
- Once you have been in the job a number of years, you could progress to become a senior analyst, director or head of security.
- You could be self employed as a security consultant, and work on contracts with different organisations.

More Information

The term cyber security covers the security of the internet, telecommunications networks and computer systems. As more organisations realise the importance of data protection due to their business relying on the internet and IT systems, the prospects for security professionals has never been better.

You should check out **The Cyber Security Challenge** website, a government and industry initiative encouraging involvement in the industry through a variety of interactive games and activities, and providing information on how to start a career in this ever evolving and growing area.

For more information please see organisation below:

- BCS, The Chartered Institute for IT

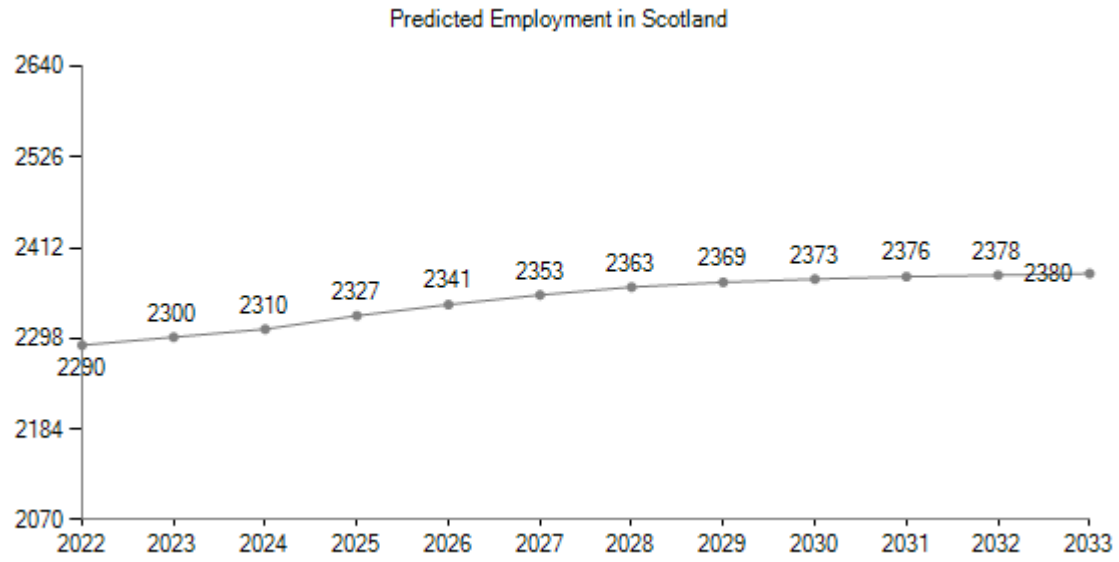
Contacts

Statistics

Employment Status : Not available this career.

Past Unemployment - Scotland

No Claimant statistics available for Scotland.



LMI data powered by Lightcast