

## Computing and ICT

Are you logical, analytical and good at solving problems? Are you interested in how computers and software work? If you think you'd like to write the computer programmes that control aircraft systems, make sure that financial data is secure or design and install big computer networks, then this could be the industry for you.

Over 90,000 people are employed in technology roles, across all sectors, in Scotland. 40% of those are employed in technology businesses, with the remaining 60% in other sectors such as finance, engineering, health and creative industries.

An important aspect of the information and communication technology industry is the high rate of change. The actual power of computers grows every year and new applications are constantly being developed.

### What areas can I work in?

There are many different sectors in the computing and ICT industry and you would usually specialise in a particular area. These include computer programming and software engineering, IT support, IT security, systems analysis and design, networks, database administration and web and multimedia.

Some areas of this industry are related to engineering, such as electrical and electronics work.

### What kind of companies can I work for?

Almost all companies and industries use computing and information technology, so the range of firms that you could work for is vast. They could include:

- large technology companies
- finance and commerce companies
- local government and the Civil Service
- the National Health Service (NHS)
- games development companies
- web design and development agencies
- aerospace companies
- manufacturing and engineering firms
- education.

### What's the job market like?

The number of people employed in ICT and digital roles is predicted to increase by 15% by 2020 and the digital technology sector is expected to grow twice as fast as the overall Scottish economy up to the year 2024.

One of the biggest growth areas recently has been in cyber security, with the number of advertised vacancies growing by 103% in five years. This sector now employs approximately 58,000 people across the UK.

According to a report from the Digital Technologies Skills Group, the most in demand language skills are HTML,

Java and SQL and of growing importance are skills in client interface, sales and marketing, and data skills.

There is a definite demand for more women in the industry, with just 18% of digital technology professionals in Scotland being female. This must change if the industry is to stay competitive. [Tech Future Girls](#) and [Stemettes](#) are just two initiatives encouraging more young women to consider a career in the industry.

## Facts and figures

- According to the TechNation 2017 report there were 25,992 digital jobs in Glasgow, 25,109 in Edinburgh and 3,571 in Dundee.
- The average salary for technology jobs in Scotland is £37,500, higher than the average of £28,000.
- In 2016, 76.5% of computing science and IT graduates were working within six months of graduation.
- According to data from TIGA, Scotland is the second fastest growing cluster in the UK games industry, with an increase in the number of developers from 1,290 to 1,540 between March 2016 and November 2017.

## Want to find out more?

If you are considering a career in IT, take a look at [Tech Future Careers](#) and the [Creative Skillset Scotland](#) website, which has information on job roles in the computer games sector.

## Sources

- [Tech Nation 17](#) website
- Scotland's Digital Technologies: Summary Report, Digital Technologies Skills Group (2017)
- Factsheet: Cyber Security Specialists in the UK, The Tech Partnership (February 2017)
- What do graduates do? Prospects in association with HECSU and AGCAS (2017)
- Skills Development Plan for Scotland's ICT and Digital Technologies sector, Skills Development Scotland, March 2015
- Article: Scottish video games industry 'rocketing' as jobs rise' ([futurescot.com/games-scottish-industry-rocketing](http://futurescot.com/games-scottish-industry-rocketing)), Will Peakin (31 January 2018)