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.

Technology professionals are employed across all sectors, not just in technology. In 2024, the digital technologies sector in Scotland employed 87,700 people, representing 4.3% of all private sector jobs. [1]

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.

To see the routes to getting into each of these sectors, take a look at our Career Pathway.

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?

According to the Skills Development Scotland Digital Technologies report, mid-term employment in this sector is forecast to grow by 3.7% (3,200 people), and that by 2027 the workforce size will have grown to 91,000 workers. [2]

The same report predicts that in 2027, the top employing regions in the sector will be Edinburgh, East and Lothian, and Glasgow College Region, the same as in 2024. The top employing occupation is forecast to be Science and Technology Professional Occupations. [2]

According to the latest ScotlandIS survey, 69% of companies have identified artificial intelligence (AI) and machine learning (ML) as critical growth opportunities, a significant increase from 43% in 2023. [1] Edinburgh is considered

to be the leading city outside of London for expertise in AI and data. The University of Edinburgh is considered particularly productive, having trained many of Europe's AI experts. [2]

Each year, around 14,000 new positions in digital technologies are created, yet the supply of qualified candidates struggles to keep pace, so future opportunities are positive. [1]

There continues to be a gender imbalance when it comes to women working in technology in Scotland, with just 23% in the workforce, so there are many initiatives to try and encourage more young women into this career area. [1] These include Stemettes and Next Tech Girls.

Facts and figures

- In 2025, the most in-demand technical skills are Python (46%), JavaScript (42%) and SQL (39%). [1]
- Artificial Intelligence/Machine Learning (69%), data analytics (41%), and cyber security (41%), are the top three areas for new opportunities in 2025. [1]
- It's estimated that the digital technologies workforce have higher qualifications than the Scottish average, with 76% qualified to SCQF Level 7 and above. [2]
- In the UK, from the academic year 2021/22, 75.2% of Computer Science graduates were in employment 15 months after graduating (full and part time) - of those, 70.1% worked as IT professionals. 3.8% of all Computer Science graduates went on to further study. [3]

Want to find out more?

If you are considering a career in IT, take a look at Tech Skills Careers and the Screen Skills website, which has information on job roles in the computer games sector.

Sources

[1] Scottish Technology Industry Survey 2025, ScotlandIS

[2] Sectoral Skills Assessment: Digital Technologies, October 2024, Skills Development Scotland

[3] What do graduates do? Prospects (part of Jisc) and AGCAS (2024/25)