

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.

According to Scottish Development International, there are over 83,000 people employed across Scotland's digital and technology industries, and 10,395 registered businesses in the technology sector. These businesses engage in a variety of activities from software development to communications.

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?

Data collected from the ScotlandIS Scottish Technology Industry Survey 2023 indicates the technology sector is still growing, with 64% of companies reporting a boost in sales, while 52% reported an increase in profits.

In the same survey, the demand for the recruitment of university graduates increased from the previous year, with 81% of businesses reporting that they are definitely or quite likely to recruit graduates in the next 12 months (an increase of 5%). Interest in recruiting college graduates has also increased, from 52% in the previous year to

65%.

The businesses that responded in the survey reported seeing the greatest opportunities for their business over the next 12 months in cyber security (46%), followed by data analytics (45%), and artificial intelligence (43%).

By 2025, 'esports' – the world of competitive, organised video gaming – is predicted to grow to be worth £1.4 billion. In Dundee, already known for its gaming expertise, there are plans to develop a 4,000 capacity esports arena as part of the £1 billion waterfront development, with the aim of opening in 2025.

According to research in the Tech Nation People and Skills Report 2022, tech job opportunities have hit a 10-year high in the UK. In Scotland, tech vacancies have risen to 13% of all available vacancies. Hiring is 42% higher than in 2021.

There is still room for improvement in the employment of females in the tech sector. 50% of workers in the UK labour market are women, but in the technology sector, it is just 26%. [Stemettes](#) and [Next Tech Girls](#) are just some of the initiatives encouraging more young women to consider a career in the industry.

Facts and figures

- Scotland's IT and software industry is forecast to grow by 38% by 2024.
- 32% of IT specialists in Scotland are female, compared with 22% nationally.
- The digital technology sector in Scotland contributes around £6 billion to the economy.
- The Scottish median real time advertised salary in the digital technologies sector in 2021 was £30,900 per annum.
- From the academic year 2019/20, 83% of IT graduates were in employment 15 months after graduating (full and part time) - of those, 67.7% worked as IT professionals. 5.2% of all IT graduates went on to further study.

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

- BBC [website](#) - Esports: How can they keep growing in 2023? (29 December 2022)
- Key Sectors – Digital and Technology Industries, [Scottish Development International](#) (June 2023)
- People and Skills Report 2022, Tech Nation [website](#)
- Scottish Technology Industry Survey 2023, ScotlandIS [website](#)
- Sectoral Skills Assessment: Digital Technologies (February 2022), [Skills Development Scotland](#)
- What do graduates do? Prospects in association with AGCAS (2023)