

# TECHNOLOGY AND ENGINEERING

## THE WORLD NEEDS YOU. BE THE ENGINEER OF YOUR OWN FUTURE.

Studying a degree within technology or engineering opens a world of possibilities. Essex graduates have gone on to work in areas such as software, web or game development, information systems, data analysis, networking or electronic engineering and consultancy. Your skills are in demand but don't be complacent; you need to keep learning and innovating to keep up with this fast-moving sector.

The sector is open to graduates that have studied a wide range of degrees; many employers appreciate that a diverse set of skills and backgrounds can create a more successful workforce and will train you in the key technical skills required if you have a passion to learn and develop.

Starting a career in technology with any degree:

<https://targetjobs.co.uk/career-sectors/it-and-technology/286169-all-degrees-welcome-for-graduate-it-jobs>

## WHERE CAN YOU WORK?

You may have ambitions to work for a technology giant such as Amazon, Google, IBM, Microsoft or Apple, but don't overlook other options. There is a huge demand for technical skills in other industries such as the public sector, finance and banking, retail, manufacturing, not-for-profit and consultancy.

You could work for small business, also known as an SME (Small or Medium Enterprises). SMEs accounted for 60% of all private sector jobs in the UK (FSB, 2018). Remember this is a fast moving sector so there are many new tech start-ups around looking to develop their business with fresh talent but you might need to be proactive to find them.

Research graduate employers from different sectors using websites such as:

[targetjobs.co.uk/employers](https://targetjobs.co.uk/employers)

[www.gradcracker.com/directory/sectors](https://www.gradcracker.com/directory/sectors)

## ONLINE VACANCIES

[careerhub.essex.ac.uk/students/jobs](https://careerhub.essex.ac.uk/students/jobs)

CareerHub job vacancies

[www.gradcracker.com](https://www.gradcracker.com)

science, engineering and technology vacancies

[www.stemgraduates.co.uk](https://www.stemgraduates.co.uk)

STEM recruitment specialists

[targetjobs.co.uk](https://targetjobs.co.uk)

Graduate job vacancies

[debut.careers](https://debut.careers)

Use this app to build a profile where employers can find you

[www.cwjobs.co.uk](https://www.cwjobs.co.uk)

Range of tech roles

[www.technojobs.co.uk](https://www.technojobs.co.uk)

Collates IT & Technical vacancies from various job portals

[www.gamesindustry.biz](https://www.gamesindustry.biz)

news and vacancy information about the games industry

[www.engineeringjobs.co.uk](https://www.engineeringjobs.co.uk)

Engineering roles

## AGENCIES

[www.matchtech.com](https://www.matchtech.com)

Engineering and Technology recruitment specialists

[www.ecmselection.co.uk](https://www.ecmselection.co.uk)

High tech recruitment

[www.aswift.com](https://www.aswift.com)

Video games recruitment

[www.opmjobs.com](https://www.opmjobs.com)

Video games recruitment

## RESOURCES

[www.theiet.org](https://www.theiet.org)

The Institution of Engineering and Technology

Guides to the sector for graduates:

[targetjobs.co.uk/career-sectors/it-and-technology](https://targetjobs.co.uk/career-sectors/it-and-technology)

[www.brightnetwork.co.uk/career-path-guides/technology-it-software-development/](https://www.brightnetwork.co.uk/career-path-guides/technology-it-software-development/)

[www.prospects.ac.uk/jobs-and-work-experience/job-sectors/information-technology](https://www.prospects.ac.uk/jobs-and-work-experience/job-sectors/information-technology)

sectors/ information-technology

# CAREERS IN TECHNOLOGY AND ENGINEERING

There are many different roles within the sector so we've pulled together some of the most common job types as an overview. Note that job titles may vary depending on the employer; therefore when job searching it's useful to be flexible with terms such as systems, software, database, programmer, analyst, engineer, developer etc.

## SOFTWARE ENGINEERING (DESIGNING, BUILDING, DEVELOPING AND TESTING)

You would implement software solutions by building programs, applications and websites. The work can involve talking to clients and colleagues to assess and define what solution or system is needed.

## WEB DESIGN / DEVELOPMENT

This involves building and maintaining websites and web applications. Although work usually focuses on the underlying software and databases (back-end), some work is solely on the interface and visual design (front-end), while others combine both ('full-stack development').

## GAME DEVELOPMENT

You'll be involved in the creation and production of games for various devices. Depending on the company you work for you may be involved in the design as well as the development of the game.

This is a competitive industry therefore passion, perseverance and work experience as well as the relevant technical skills are essential.

## IT CONSULTANCY

Typically technical consultants provide technical expertise to, and develop and implement IT systems for, external clients. You may also be called upon to provide guidance and technical expertise during other processes as well. You would need excellent communication and organisational skills to perform well in this role.

## HARDWARE ENGINEER

You would be involved in research, design, development, and testing computer equipment such as chips, circuit boards, or routers. You could participate in any stage of a project including the initial brief for a concept, design and development, testing of prototypes and the final manufacture and implementation of a new product or system.

## SYSTEMS / BUSINESS ANALYST

You would design and analyse technical systems or processes to ensure that they are running efficiently and productively within the organisation. You would need good project management skills as well as excellent communication and organisational skills.

## DATA ANALYST / SCIENTIST

The ability to draw insights from data is in huge demand from multiple sectors. Working in this field you would be required to look into, organise and analyse data. You would need to be highly analytical, have strong mathematical skills, as well as being curious and inquisitive.

## CYBER SECURITY

Cyber security is fast becoming one of the most important roles in the tech sector as cyber criminals and hackers become ever more sophisticated. In this role you'll protect an organisation by preventing, detecting and managing cyber threats. You could be offering advisory services to clients or working to protect the security of the organisation you work for.

Find out more about what career paths are available to you:

**Electronic Engineering:** [www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/electrical-and-electronic-engineering](http://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/electrical-and-electronic-engineering)

**Computer Science:**  
[www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/computer-science](http://www.prospects.ac.uk/careers-advice/what-can-i-do-with-my-degree/computer-science)