

Blockchain Developer

Blockchain developers are software or applications developers who work with blockchain technology.

A blockchain is an encrypted digital database shared across a network which is used to store or organise information. These are made up of data blocks, which are linked to form chains, which cannot be changed once they are created.

Bitcoin, a virtual or cryptocurrency, is an application based on blockchain technology, allowing people to directly and securely send each other digital money on the internet.

The Work

You could be:

- designing and building the structure of blockchain systems
- developing web applications that can use blockchain technology
- making sure that blockchain systems run properly, and are secure against cybercrime
- testing, trouble shooting and debugging software, and running upgrades to fix technical problems
- making sure the system is 'scalable' so that it can handle large amounts of transactions
- creating 'decentralised' applications, or DApps (programmes which run on blockchain networks rather than central servers), and making sure they work correctly
- writing and installing smart contracts (self-executing agreements coded directly onto the Blockchain, so users immediately know about the outcome of an agreement)
- keeping up to date with the latest developments in blockchain technology to improve the applications you are working on
- writing documents describing the development process, system architecture, and technical aspects of blockchain projects
- working with other teams who are using or need blockchain technology in your company.

You could be specialising either in blockchain architecture, smart contract development or application development.

Pay

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

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

Average salaries for blockchain developers in the UK are normally around £50,000 a year though some can earn up to £65,000 a year.

Conditions

- You would work normal hours from an office, from home, or a mixture of both.
- You spend most of your time working at a computer.
- You might have to work evenings or weekends to meet deadlines. Depending on your job, you might sometimes be on call.
- You might have to travel and spend time away from home to meet with clients.

Getting In

- To get into this job you will already have to be an experienced [software engineer or developer](#) or [applications developer](#). There are currently no undergraduate courses in blockchain technology.
- Most entrants already have a degree (SCQF Levels 9-11) in a subject such as computer science, software development, software engineering or other relevant subject. For entry on a degree course you need 4-5 Highers.
- You might be able to get in through a Graduate Apprenticeship in IT: Software Development at SCQF Level 10. You normally require 4 Highers including Maths or Computing Science plus National 5 Maths (if not held at Higher). Check the [apprenticeship.scot](#) website for details.
- You could study for an HND (SCQF Level 8) in Computing: Software Development, and then get on to a degree course. Entry requirements for HNDs are normally 1-2 Highers plus some subjects at National 5.
- You might get in through a Modern Apprenticeship in IT and Telecommunications or Digital Applications at SCQF Level 6, then work your way up with experience and further specialist training, or a Technical Apprenticeship at SCQF Level 8.
- Studying for a relevant Foundation Apprenticeship while in fifth and sixth year at school could count towards entry of a course. Entry requirements vary between colleges, but you usually require some subjects at National 5 including English and Maths.
- The University of East London offers a postgraduate MSc degree (SCQF Level 11) in Blockchain and Financial Technologies full or part time.

Demand for experienced blockchain developers is growing as more industries are increasingly using this technology. This includes finance, healthcare, supply chain management and retail industries to name a few.

Most jobs for blockchain developers are currently advertised in London. However, you can find software developer jobs advertised in Scotland which ask for blockchain development skills. You will find jobs advertised on the internet.

What Does It Take

You need to have:

- excellent IT and programming skills
- an analytical, logical and methodical approach
- excellent problem-solving skills
- a high level of patience, perseverance and attention to detail
- good interpersonal and communication skills – to work with colleagues and clients who may not have a technical background

- an ability to learn new skills and technology quickly.

You should be able to:

- prioritise workloads
- work accurately under pressure and meet deadlines
- work as part of a team as well as on your own.

Training

- There are many training courses online to help you learn about blockchain technology.
- You would learn scripting languages such as C++, PHP, JavaScript and Python, as well as cryptology, smart contract technology and web development.
- With a Modern Apprenticeship you would work towards the Diploma for Information Technology and Telecommunications Professionals at SCQF Level 6 or Diploma in Digital Application Support at SCQF Level 6.
- You can study for professional qualifications in programming and blockchain technology through [BCS, The Chartered Institute for IT](#).
- You will need to keep up to date with the latest developments in blockchain technology.

Getting On

- With experience, you might move on to be a project manager or senior blockchain developer.
- You could work as a blockchain adviser, or as a blockchain data scientist.
- You might work freelance on short term contracts or as a consultant.
- You might work overseas either with UK based companies or international organisations.

More Information

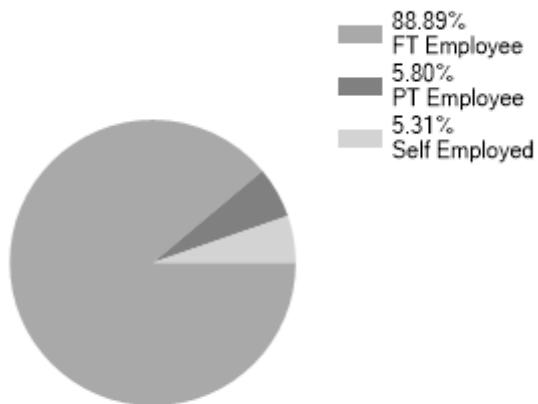
You can learn more about the growth of blockchain technology in Scotland from the following website:

[FinTech Scotland](#)

Contacts

Statistics

Employment Status UK %

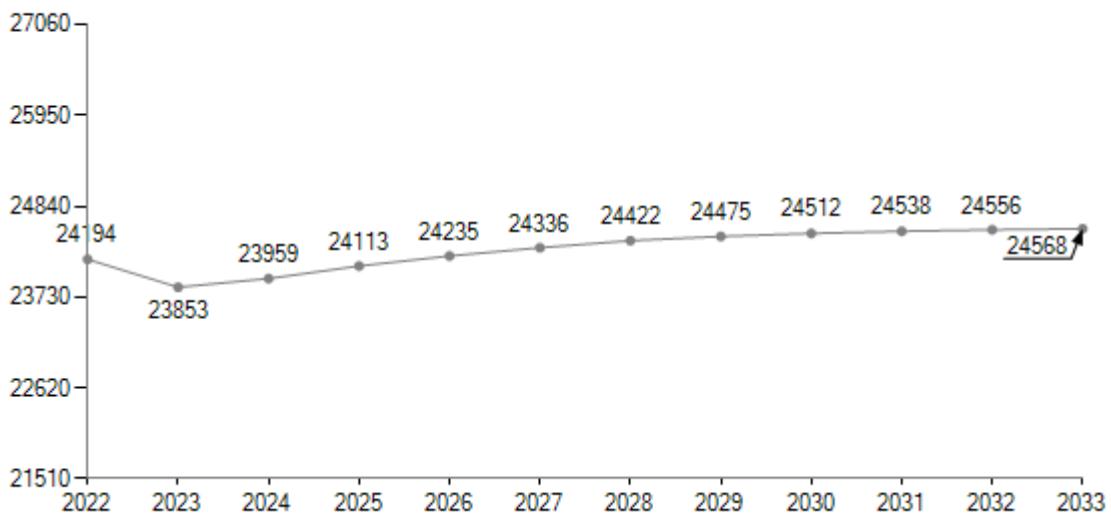


Past Unemployment - Scotland

No Claimant statistics available for Scotland.

LMI data powered by [LMI for All](#)

Predicted Employment in Scotland



LMI data powered by [Lightcast](#)