

Software Development

I am a senior software engineer at Cultivate. I've been working in software for the last 8 years and worked on a wide variety of projects, including Deliveroo and Skyscanner, as well as heading up the instructional team at the CodeClan bootcamp for a year. I can answer questions on what it's like to do Computer Science as a degree, what life is like as a Software Engineer and anything else that the students might like to know about the wonderful, creative world of programming.

Background

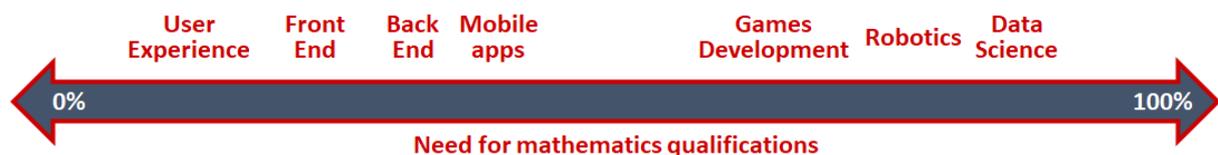
I am a Software Engineer for Cultivate Software. I have been working for 12 years in the industry. I started a degree in Accountancy at Heriot Watt University, then changed to Computer Science after taking a coding Boot Camp.

I have worked on assignments for the National Galleries of Scotland, Skyscanner, & Deliveroo whilst at Cultivate.

Subject

If you like logic, design, talking, helping other people, seeing something you made, then a career in Software Development may be for you.

I feel strongly that coding does not have to be Maths-based. There are many roles within the industry from UX (user experience) or Front End/ Back End (for website building or mobiles) to Games development and Robotics, where Higher Maths will be sufficient. In areas like Data Science there is more of a focus on Maths.



Games Development presents particular challenges for new entrants - its popularity means jobs attracts many applicants, and the greater competition for places drives up the baseline qualifications for gaining entry - a simple consequence of supply and demand.

A day in the life of...

I spend 25% of my day coding, 50% of my day communicating and 25% of my day on Design.

Coding involves activities such as Bug Fixing and New Feature Development. I like to clean up Legacy Code, however it can be frustrating as client deadlines often mean there has to be a compromise between speedy development and elegantly structured code.

A degree in Computer Science:

I work with people that have come from a wide range of backgrounds (one was a jazz musician, another was a fireman!). A computing degree is not necessary (see coding boot camps below); however she found her degree in Computer Science very useful.

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Coding Boot Camp:

Coding Boot Camps are an excellent way for graduates of all disciplines to break into the software industry. These are intensive training courses, working in project teams to develop skills in many disciplines. They typically last 16 weeks (eg CodeClan), and there is a very high success rates of students finding jobs on completion.

Programming Languages:

I am currently working in Ruby, which is similar to Python. I specialise in object-oriented (or functional) languages, which makes it relatively easy to switch between different languages. Although it takes time to learn a computer language, once you learn one, it is easier to learn the next, and some are very similar. Older systems tend to be written in procedural languages, which have a different fundamental approach. Different applications will require different languages, and successful programmers will be adept at implementing the coding language in a number of different languages (often relying on Google to verify the correct syntax for commands in particular versions of languages!).

Salary Range:

Edinburgh graduate pay will probably be within the range £25k (in a smaller company) to £35k (in a larger one). Larger companies (e.g. banks, insurance companies) tend to have better pay and conditions (e.g. pensions), and often better job security; however they tend to be less agile, less interesting, and less rewarding than smaller, more entrepreneurial companies. Experienced software engineers will earn over £50k.

In London or San Francisco, salaries will be higher, but so might living expenses, and you have to weigh up all aspects of pay, conditions, lifestyle, closeness to home, etc, when deciding where to work and who to work for. Lots of software developers work on a contract basis - this means they are self-employed, and although they earn more money, they don't get benefits like holiday pay, sick pay and pensions; some contractors choose to work for short contracts at higher rates, taking time off between to enjoy their hobbies.

Employment Opportunities:

There are 1000 new start-ups a year in Edinburgh, and presently 12,000 unfilled IT positions. Some jobs (like an IT architect in the Financial Sector) will train you on the job.

There are a huge variety of roles within the sector - it is a good idea to find out which you prefer, but you can also move to different areas as your career develops.

Extra Tips:

- get a holiday job EVERY summer - it helps you build life skills, and it makes it easier for employers to decide to take a chance on hiring you.

- Tech Meet-Ups are a fantastic way of finding out what's going on in the industry, and of building links with potential employers; there are lots of them in big cities like Edinburgh, some quite generic and others very specific.