Artificial Intelligence Specialist/Engineer

Artificial intelligence (AI) involves training computers and machines to behave like human brains. We use AI to perform everyday functions such as internet searches, voice controlled devices like Alexa and Siri, and even drive cars. Apps such as Netflix use AI to learn what we like to watch and recommend shows. An AI specialist/engineer is responsible for designing and training the programmes that allows these machines to function like a human brain.

They may also be known as machine learning engineers.

The Work

You could be:

- designing programmes to perform and improve tasks normally carried out by humans
- training the software to perform tasks without human intervention using algorithms (an algorithm is a set of instructions which a computer can use to help solve a problem and decide what to do next)
- analysing large amounts of data to learn to complete a task (machine learning)
- testing these artificial intelligence frameworks
- maintaining and updating current systems
- keeping up to date with latest technologies.

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.

Starting salaries may be around £25,000 to £30,000 a year rising to £40,000 to £45,000 with experience. Senior AI engineer/specialists can earn £60,000 a year or more.

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.
- You might have to travel and spend time away from home to meet with clients.

Getting In

- You need an undergraduate degree (SCQF Levels 9-11) in a relevant subject. Several Scottish universities now offer degree courses in artificial intelligence.
- Other relevant degrees would include computer science, data science or another mathematical or

scientific discipline.

- Entry to this type of degree course is typically 4-5 good Highers including Maths.
- A Foundation Apprenticeship in IT: Software Development at SCQF Level 6 may be accepted in place of one Higher and be a good way to get started.
- You could start off with an HNC or HND (SCQF Levels 7 and 8) in a relevant subject such as Software Development before going on to second or third year at university to complete a degree. Entry is usually 1-2 Highers in relevant subjects.
- 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.
- If you don't have a relevant degree, you can take a postgraduate course (SCQF Level 11) in artificial intelligence or other relevant subject. Many universities in Scotland offer MSc courses in these subjects.
- Some employers ask for a postgraduate qualification.

This is a growing market and more technology is being performed by AI technology all the time. Everyday examples as well as those mentioned above would be chatbots, smart home devices, virtual personal assistants, facial recognition, healthcare diagnostics and many more. This will only continue to grow in the coming years. Jobs are widely advertised on the internet.

What Does It Take

You need to have:

- excellent IT and mathematical skills
- an analytical, logical and methodical mind
- excellent problem solving skills
- a high level of patience, perseverance and attention to detail
- excellent communication skills
- an ability and willingness to learn new skills and technology quickly.

You should be able to:

- prioritise your workload
- work accurately under pressure and meet deadlines
- work as part of a team as well as on your own
- understand the client's needs and respect confidential information.

Training

- Training may be on the job.
- There are many software packages used in AI technology, you wouldn't need to know them all. Most common ones would be Python, Java and JavaScript.
- You would learn AI tools such as AIX coder to use alongside programming software.
- You would need to keep up to date with new programmes that come on the market as technology is always changing.

Getting On

- With experience, you might gain promotion to team leader, project manager or manager.
- You may set up your own business and work freelance.

Contacts

Statistics

Past Unemployment - Scotland

No Claimant statistics available for Scotland.

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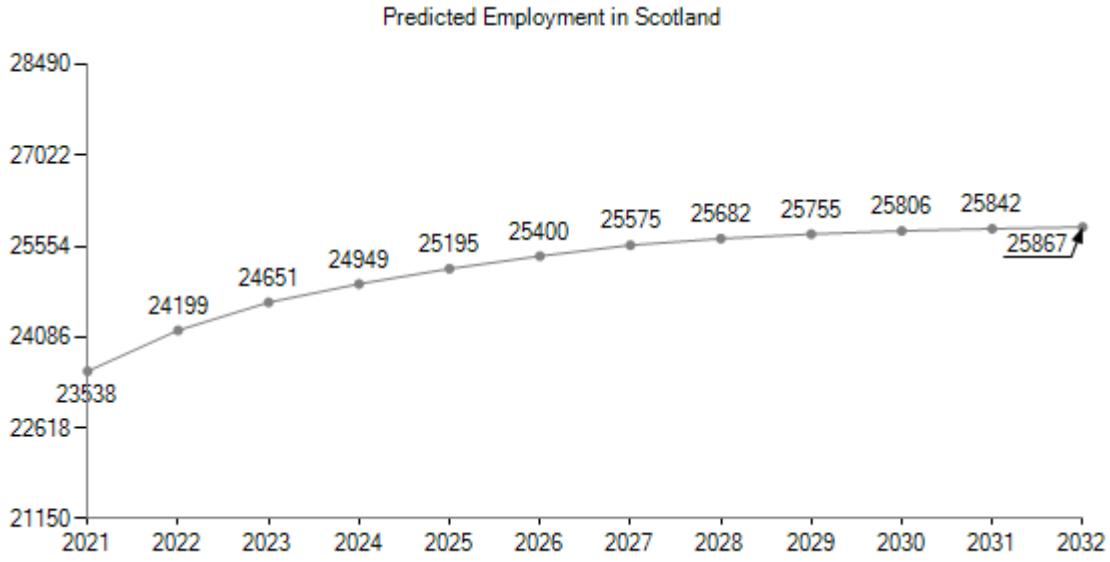

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