



Software Engineer – Job Description

Location: Nottingham, remote working possible

Salary: £30k – £40k per annum DOE

Contract: Full time, Permanent

Hours: 40 hours per week, flexible hours possible

Bonus: Annual, performance-based

Cerca Magnetics Limited is a joint venture between The University of Nottingham (UoN) and Magnetic Shields Limited (MSL). Cerca's team of world-leading scientists are building the world's most advanced functional brain scanner – a lightweight wearable device that uses Optically-Pumped Magnetometers (OPMs) to revolutionise neuroimaging. Cerca Magnetics' vision is to take this research and build it into a commercial product to be sold to research teams and healthcare providers around the world.

Cerca's product is an integrated neuroimaging system which is made up of a magnetically shielded room, an array of OPM sensors, and the necessary hardware and software to control the system, capture the imaging data and display it to the user.

Due to continued growth and expansion, following an initial spin-out in 2020, Cerca Magnetics are now currently recruiting for a Software Engineer to join their team.

As a Software Engineer you will work on the software development and integration of our imaging system. You will work as part of a team to productionise and integrate the existing system, as well as creating new features. You will have the opportunity to work across the the whole software system including instrument monitoring and control, digital signal acquisition, real-time data processing and the user interface. You will be writing software for Microsoft Windows.

Key Tasks/Duties of this role:

- Working across the full software development lifecycle including design, development, testing, deployment and support
- Producing system documentation
- Working as part of a multi-disciplinary team to build and deliver the product

Essential skills:

- Hold a minimum 2:1 degree or equivalent in Software Engineering, Computer Science, Electronics Engineering, Physics or similar discipline
- Minimum of 2 years experience developing software as part of a team
- Strong programming skills in at least one mainstream programming language (C, C++, Java, C#, Go, Rust)
- Some experience of scripting languages like Python or Perl
- Good computer science fundamentals (data structures, software design, operating systems)
- Experience of modern software engineering practices (unit testing, version control, continuous integration, code review)
- Good written and verbal communication skills
- Ability to discuss technical ideas with people of different backgrounds
- Strong initiative and ability to work autonomously on projects
- A growth mindset. A willingness to have a go and learn new skills

Desirable Skills:

- Experience of controlling equipment and collecting data using LabVIEW, Python, C or similar
- Experience with real-time signal processing
- Experience with firmware tools and devices such as microcontrollers and FPGAs
- Familiarity of IEC 62304 accredited software
- Knowledge of Microsoft Windows internals and drivers

In line with the Equality Act 2010, Cerca understand and appreciate the importance of equality, diversity and inclusion, both in work and in life. We therefore actively encourage applications from all backgrounds, as we believe a more diverse team is a more successful team!

