



## Software Engineer – Job Description

**Location:** Nottingham

**Salary:** £35k – £40k per annum DOE

**Contract:** Full time, Permanent

**Hours:** 40 hours per week (Flexible hours and remote working are possible)

**Package:** Competitive holidays, performance-based (non-contractual) bonus scheme, pension scheme

**Cerca Magnetix Limited** is a joint venture between The University of Nottingham (UoN) and Magnetic Shields Limited (MSL). Cerca's team of experienced business leaders and 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 Magnetix's 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 ongoing and exciting growth plans, Cerca Magnetix are now currently recruiting for a Software Engineer to join their dynamic, forward thinking team. The opportunity is to not only join the Company in a very interesting role but also to influence the direction of the position and department, helping Cerca provide revolutionary products that will transform the neuroimaging landscape.

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.

As the Company expands, there will be opportunities for career development for the right candidate.

### Key Tasks/Duties of this role:

- Working across the full software development lifecycle including design, development, testing, deployment and support
- Producing system documentation compliant with IEC 62304 to ensure safe design and maintenance of medical device software

### Essential skills:

- 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)
- Experience with version control tools such as Git
- Good written and verbal communication skills
- Ability to discuss technical ideas with people of different backgrounds, collaborating in challenging projects within highly regulated environment
- Strong initiative and ability to work autonomously on projects

**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
- Knowledge of databases such as SQL or MySQL
- Familiarity of developing IEC 62304 accredited software
- Experience working under an ISO 13485 QMS
- Ensure quality through rigorous software testing
- Contribute to technical and regulatory documentation and reports
- Unit and system test experience in regulated industries.
- Full software development life-cycle.
- Networking and data storage experience

**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!**