



Software engineer/Senior software engineer

Bristol-based health tech start-up Siloton seeks a skilled and innovative individual who is interested in applying their software engineering skills to improve the lives of people with eye disease.

What we do

Four hundred and twenty million people suffer from chronic eye disease; it is the leading cause of sight loss in the developed world. To prevent people going blind, clinicians take sub-surface images of the back of the eye so that the condition can be diagnosed and managed appropriately. This uses a device called an optical coherence tomography machine, or 'OCT', which currently require bulky, desk-sized workstations. Siloton is developing the first truly portable OCT to provide better access to diagnostic and monitoring services for everyone who needs it. Based on Siloton's world-leading photonic chip technology, this will reduce the burden of treatment while removing bottlenecks in the clinical pipeline, alleviating pressure on healthcare systems and ensuring patients receive the best possible care, wherever and whoever they are.

What we are looking for

You will join Siloton as a Software Engineer or Senior Software Engineer, working closely with the current Senior Software Engineer and technical team as a whole.

Our software is mostly written with Rust, with some work done in Python. Rust knowledge is not essential, and can be learned on the job.

This is a broad, hands-on engineering role. You will develop software across Siloton's OCT imaging system: from the algorithms that will run within the medical device to the desktop application used to configure, control and monitor it. This includes high-performance image acquisition and processing algorithms, implementing reliable control of cameras and other instruments, and building the desktop graphical user interface through which researchers, clinicians, and operators use our system.

This role combines systems programming, numerical and image-processing software, instrument control and desktop application development. You will work closely with engineers in photonics, electronics, and optics to turn experimental imaging systems into reliable medical-device software.

This role is best suited to someone who enjoys problem solving involving physical systems, performance constraints, complex data flows and real-time behaviour.

You will be reporting directly to Siloton's CTO, Dr. Euan Allen.

Responsibilities

Your work will include:

- Developing algorithms that form part of Siloton's OCT device.
- Implementing high-performance image acquisition, reconstruction, processing, and visualisation pipelines.
- Developing and maintaining the Rust desktop application used to control the imaging system.
- Optimising algorithms for execution time, memory use, latency, and image quality.
- Designing software interfaces for cameras, mechanical stages, optical sources, and other system hardware.
- Designing state machines and control logic for device operation, calibration, acquisition, and recovery.
- Integrating third party SDKs through FFI.
- Supporting laboratory experiments, system demonstrations and imaging sessions.
- Contributing to software architecture, code review, documentation and engineering practices.
- Interacting with customers to elicit requirements, receive feedback, and deliver support.
- **For Senior candidates:** Mentoring team members and taking a lead role in software architecture and system design decisions.

Experience

The below requirements are to be used as guidelines for the role. We want to hear from anyone with an interest in applying for the role, even if you only meet some of the criteria.

Essential:

1. A degree in computer science, physics, mathematics, electronic engineering or another relevant subject, or equivalent substantial professional experience.
2. Experience developing technically complex software using Rust, C, C++ or another low-level language.
3. Evidence of independently solving open-ended engineering or scientific problems.
4. The ability to understand mathematical or scientific concepts and translate them into reliable software.
5. Ability to manage a software delivery pipeline, including version control, testing, continuous integration, and environment hygiene.

Desirable:

1. Master's degree or PhD in a relevant technical or scientific subject.
2. Knowledge of Rust.
3. Knowledge of Python.
4. Familiarity with modern AI-assisted coding tools (e.g., GitHub Copilot, LLMs) to accelerate development, debugging, and testing.
5. Experience working in an academic group, R&D organisation, start-up, or other research-led engineering environment.
6. Experience implementing algorithms described in research papers, or developed by scientists.
7. Experience with signal processing, scientific imaging, numerical methods, optics or instrumentation.
8. Experience taking experimental algorithms or prototypes through to tested maintainable production software.
9. Experience building software for a regulated device.

Working at Siloton

Siloton is developing a device for all to use and so we welcome and encourage applications from people from all backgrounds and walks of life. Flexible working options are available for this role.

We value everyone's contributions equally, striving to ensure that our employees always have the opportunity to gain new skills and provide input into the direction of the company. Siloton is highly invested in supporting and developing employees as they form an integral part of the company and its success.

Siloton offers a dynamic working environment that bridges between cutting edge science and working with patients to understand their needs and challenges. The team is committed, driven by impact, and highly supportive.

How to apply

Please send a CV and cover letter to recruitment@siloton.com. Applicants will be interviewed on a rolling basis so are encouraged to apply early.

Applicants must have the right to work in the UK.

Any questions regarding the role can be sent to recruitment@siloton.com.

Selection Process

We do not use AI tools to assess or screen candidates that apply for our roles. All assessments and interviews are carried out by people working for Siloton. Our process is:

1. CV and cover letter review.
2. 1-hour video call with two team members.
3. 2-hour technical interview online with two team members.
4. Visit to our offices in Bristol with a 1-hour final interview (travel expenses reimbursed).
5. References contacted.
6. Job offer made.

Start date

As soon as possible.

Contract type

Permanent full time.

A part-time position is also possible but will be assessed on a case-by-case basis to meet workload requirements.

In-person position (hybrid options available).

Salary and compensation

£50,000-£60,000 per annum depending on experience

Company share options package.

Enhanced annual leave (25 days + bank holidays, with an extra day for each year of service up to 3 years).

Flexible working from home options (where possible).

Cycle to work scheme.

In-year employee reward scheme.

Paid sick leave.

Enhanced paternity/maternity cover.

Apply today and play an integral role in bringing a new sight-saving medical device to market