

JOB POSTING

Senior Biomedical Software Engineer

Aarhus, Denmark

About Cercare Medical

Cercare Medical is a pioneering MedTech company dedicated to transforming patient care through cutting-edge medical imaging software. Headquartered at Navitas in central Aarhus, Denmark, we are an international team of approximately 50 people spanning software engineers, ML researchers, clinical scientists, and regulatory specialists — with sales offices in Germany, France, and the United States.

Our primary product, the Cercare Medical Neurosuite, delivers fast, deep, and reliable insights from brain CT and MRI scans, supporting radiologists and clinical experts in critical, time-sensitive decision-making. We combine state-of-the-art machine learning with advanced biomedical image processing to build software that directly improves patient outcomes.

We operate in an agile, research-driven culture where technological curiosity drives both product and personal development. Our team brings together diverse educational backgrounds across computer science, biomedical engineering, and clinical sciences — and we value collaboration, ambition, and a quality-first mindset.

Location	On-site / Hybrid (negotiable) — Aarhus, Denmark
Level	Senior
Employment Type	Full-time, Permanent

About the Role

We are seeking an experienced Senior Biomedical Software Engineer to drive the design, development, and productization of cutting-edge medical image processing algorithms and software systems.

You will mentor and guide fellow engineers, collaborate closely with product owners and our Chief Scientific Officer, and contribute directly to software that improves patient outcomes. This is a rare opportunity to work at the intersection of advanced algorithm development and impactful clinical application — in a company where your contributions are visible and valued.

Success criteria

30 days — Orientation

- Understands the CMN product architecture and the modalities the team works with (CT, MRI, CBCT)
- Has reviewed the codebase with a senior engineer and can navigate the C++ codebase independently
- Active contribution to the next product release

90 days — Contributing

- Has completed at least one meaningful feature or algorithm integration end-to-end
- Is conducting code reviews and providing substantive technical feedback to the team
- Has established credibility with the team on architectural decisions
- Understands the DICOM/NIfTI data pipeline and the quality standards for production image processing

12 months — Technical leadership

- Has driven at least one significant improvement in code quality, tooling, or engineering practices
- Has contributed to at least one research-to-production algorithm integration, progressing it meaningfully along the product roadmap in collaboration with the CSO
- New features and releases are delivered on time and to quality, with the engineer actively managing scope when needed
- Is actively mentoring at least one other engineer with measurable growth visible

- Clinical and product stakeholders can point to concrete improvements in software quality or capability

Key Responsibilities

Technical Leadership

- Develop and integrate advanced image processing pipelines for MRI, CT, and CBCT using modern development tools, including AI-assisted coding where appropriate, while maintaining engineering quality and accountability.
- Conduct thorough design reviews and provide technical mentorship to other fellow engineers.
- Guide technical direction and establish engineering best practices — including design patterns, code quality practices, and visual inspection practices — across the image processing team.
- Drive software quality, performance optimization, and maintainability.
- Evaluate and integrate state-of-the-art algorithms from academic literature into production systems, in collaboration with the CSO.

Software Development

- By LLM-assisted programming, develop and integrate advanced image processing pipelines for modalities such as MRI, CT, and CBCT.
- Collaborate with the CSO, Product Owners, scientists, and clinicians to translate research algorithms into production-grade software.
- Optimize computational workflows for performance, scalability, and robustness.
- Support AI/ML integration where relevant, including model deployment and validation.
- Contribute to system architecture, automated testing, and deployment infrastructure.

Collaboration & Delivery

- Partner with clinical scientists, radiologists, and product managers to translate clinical requirements into specifications and design.
- Ensure on-time delivery of new product releases, and scope new features to meet delivery dates when needed.
- Work closely with the CSO, product owners, clinical experts, data scientists, and external collaborators to ensure quality standards are met.
- Communicate complex technical concepts clearly to both technical and non-technical stakeholders.

Qualifications & Experience

Required

- Master's degree or PhD in Biomedical Engineering, Computer Science, Mathematics, Medical Engineering, or a closely related field.
- 7+ years of professional software engineering experience, including at least 3 years in a biomedical, medical imaging, or closely related technical domain.
- Demonstrable expertise in medical image processing algorithms, such as filtering, segmentation, registration, motion correction, reconstruction, or quantitative image analysis.
- Solid practical C++ experience, including the ability to read, write, debug, and maintain production-quality C++ code.
- Experience with Python is a strong advantage.
- Proven ability to lead technical work, make architectural decisions, and mentor other engineers.
- Strong experience with DICOM and medical imaging data formats.

Preferred

- Experience with ITK, VTK, SimpleITK, or similar medical image processing frameworks.
- Experience with NIfTI or other research-oriented medical imaging formats.
- Familiarity with HL7/FHIR or other clinical data exchange standards.
- Experience translating research algorithms into robust, tested, production-grade software.

Personal Attributes

- Quality-first mindset — you take pride in well-engineered, reliable software.
- Collaborative by nature — you work openly with colleagues across disciplines.
- A decisive problem solver who thrives under ambiguity and shifting priorities.
- Resilient and self-driven with a continuous learning orientation and awareness of the scientific literature.

Core Technical Stack

Languages	Python, C++
Image Processing	ITK, medical image processing pipelines — registration, motion correction, segmentation, quantitative imaging
Infrastructure	Docker
Standards	DICOM, NIFTI, HL7

Everyday Life at Cercare Medical

Joining Cercare Medical means becoming part of a team where your work has direct clinical and patient impact. Here is what you can expect:

♥ **Meaningful mission**

Work on technology that helps save lives and improves healthcare outcomes for stroke and neurological patients.

★ **Cutting-edge technical environment**

Opportunities to work with state-of-the-art AI and medical imaging technologies in a setting that bridges research and production.

○ **Collaborative, international culture**

A research-driven team of ~50 people across diverse backgrounds — engineers, scientists, and clinicians working side by side.

□ **Influence and autonomy**

An informal culture where you have significant influence over the technology and workflows we use, and genuine room to inspire direction.

▶ **Growth and development**

Great opportunities for technical and personal development, supported by a team that takes learning seriously.

● **Modern workplace in Aarhus**

Flexible working conditions and a modern office at Incuba Navitas — one of Denmark's leading innovation hubs in central Aarhus.

How to Apply

We are assessing applications on an ongoing basis and encourage you to apply as soon as possible. Please submit your CV and a brief cover letter describing your interest and relevant experience.

For questions about the role, please contact:

job@cercare-medical.com

We look forward to hearing from you.