EPFL Innovation Park, Le Garage
Chemin de la Raye 13, CH-1024 Ecublens
http://www.pristem.com

Software Developer

Medical Imaging Equipment

2/3 of the world population have still no access to medical imaging yet…

Do you have the passion, determination and enthusiasm for being part of the solution?

Do you have the unique combination of leadership and expertise required for this challenging position, including outstanding skills in medical products development, industrialization and quality management?

For its product development team, which designs and industrializes an extremely robust, cost-effective and digital medical X-ray system, Pristem is looking for highly motivated, proactive and talented engineers with a good track record in the industry of medical devices.

Position Description

The Software Developer will **own the development and V&V of key medical imaging software components** including all modules/layers related to medical data management and communication between the application software and 3rd party applications and systems (PACS/VNA/RIS/HIS/EMR), according to usual standards and protocols such as IHE, DICOM, HL-7, etc.

He/She will combine **agile methodology** with **software development processes compliant with medical devices standards** to implement rapidly a comprehensive software solution in accordance to evolutive market needs and strict quality and regulatory requirements.

As a member of the software engineering team, the Medical Imaging Software Developer will report directly to the CTO.

Main Tasks and Responsibilities

- Gather, understand and analyze product requirements with the marketing and system engineering teams, and translate them into implementable design inputs.
- Liaise with key stakeholders, end-users and partners, understand their needs and translate them into appropriate **software requirements**, mainly concerning **medical data intercommunication standards and protocols** and the integration within 3rd party healthcare IT infrastructures.
- According to the architecture and technologies defined by/with the Software Architect, design, develop, code, debug, document, test, maintain and verify the software, in collaboration with internal and external software developers.
- Determine the competencies required to ensure the whole software development and participate to the selection and organization of partners and collaborators covering those competencies.
- Develop and maintain a culture and methodology focusing on code maintainability, reliability and quality, required by the **extremely high dependability, security and safety** of our systems.
- Specify work packages and owns all the related phases of the software development lifecycle with respect to **Medical Devices Regulation and standards.**
- Identify key software solutions and build strategic partnerships with healthcare companies.
- Qualify, test and integrate 3rd parties' medical software components within our software solution.
- Ensure the **connectivity (local/remote)** and the **secure transfer of medical data**, following IHE profiles and DICOM/HL-7 conformity.
- Ensure appropriate planning and execution of **Software Verification and Validation** as part of software development projects.
- Author and maintain technical documentation required for CE marking and/or FDA approvals in compliance with regulatory requirements.
- With support of the Quality manager, ensure the **Medical Software Certification** (CE mark), **Risk Management** (EN ISO 14971), **SW development processes** and **lifecycle management** (IEC 62304), **usability** (IEC 62366), and **post-market surveillance**.
- Ensure the continuous improvement of software quality, reliability and safety.

Required Skills and Qualification

- Master's Degree in Software Engineering with 5+ years' experience in medical devices software development
- Strong experience in medical imaging, PACS systems and knowledge of IHE/DICOM/HL-7 and other related medical imaging standards and protocols
- Experience with medical data privacy and encryption technics is a plus
- Experience with microservices architecture, JVM, Java, Javascript, HTTP server, RESTFul API
- Expertise with service connectivity and industrial communication protocols is a plus (TCP/IP, WCF, CANOpen)
- Expertise in test-driven development practices following IEC62304 medical software lifecycle and usability assessment (IEC 62366)
- Experience with integration of SOUP or Open-source solutions in medical devices is a plus
- Experience with continuous integration frameworks (e.g. Jenkins or Teamcity), bug tracking systems and source version control (e.g. SVN, GIT)
- Experience with unit testing frameworks and automated testing frameworks
- Experience with Software Design for Reliability (SDFR) approaches is a strong plus
- Used to work in an agile and cross-functional team
- Ability to interact with a wide variety of internal/external stakeholders
- Open-minded, proactive, persistent, result-driven and able to work under pressure in changing environments (startup)
- Able to produce outstanding quality and reliability required for our solutions to work durably in the most challenging contexts

Languages:	French and English proficiency
We offer:	A multicultural, open-minded, highly dynamic and stimulating work environment A disruptive approach combining best-in-class medical technologies with heavy-duty industrial quality An opportunity to address a global health issue in a practical and effective manner
Activity Rate:	100%
Duration:	permanent contract
Start Date:	as soon as possible
Work place:	Pristem Switzerland
How to apply:	Send email applications including motivation letter, resume and work certificates/references to careers@pristem.com
More information:	www.pristem.com