

Software Architect

General Summary

MolecuLight is a Medical device company in Toronto, specializing in point-of-care diagnostic imaging, developing a handheld optical imaging platform. MolecuLight's first product is an imaging system with primary applications in bacterial imaging for wound care, cancer imaging, and preclinical animal model analysis.

MolecuLight Inc. is seeking a talented and experienced Software Architect, participates as a high level technical expert in planning, designing, developing, coding, and debugging new software or significant enhancements to existing software to drive a developing a handheld optical imaging platform. Demonstrating excellent communication skills, the Software Architect works as a liaison with other Engineering, Software, and Customer Support staff to understand enhancements to and problems with products and prototypes. The Software Architect may resolve customer complaints as assigned respond to suggestions for improvements and enhancements and may also supervise other Software Developers on assigned projects.

The incumbent will embrace the MolecuLight core values:

- Merit and performance based recognition and advancement.
- Build value for customers and investors.
- Innovation without ego.
- Relentlessly seek continuous improvement opportunities.
- Achieve results with a sense of urgency.
- Find how we can, not why we can't.
- We value a profitable growing company; growth creates opportunities, profit allows pursuit of opportunities
- We are intolerant of bureaucracy that adds no value to our customers.

Key Accountabilities and Responsibilities

- The architect makes many high level (and sometimes low level) design choices.
- The architect dictates various standards, including coding standards, tools and platforms.
- Perform software profiling and cycle load estimates to help define hardware platform requirements including CPU/GPU selection and memory requirements.
- Provides guidance to the software team in structure and coding.
- Perform product and prototype software development in accordance with MolecuLight methodology and practices.
- Work with internal MolecuLight staff and external MolecuLight clients to define system requirements.
- Provide guidance to the team in the resolution of any technical issues that arise.
- Responsibility for decisions on software design and architecture of a project.
- Work with other members of the project team, including other software developers, to design various aspects of the new system.
- Responsible for all aspects in the software life cycles (system or module level requirements and design, implementation, testing, documentation and maintenance) for assigned projects.
- Ensure software development results by facilitating and generating continuous, improvements in reliability, performance, and functionality of system software.
- Provide aggressive but achievable development timeline estimates for project planning, as required.
- Report in a timely fashion any variances from target completion dates of tasks or projects (or identify that tasks cannot be completed), to the Project Team Leader.

- Identify significant development risks and advise the Project Team Leader.
- Take leadership accountability for ensuring project completion within the standards required (quality, quantity, time, and resources)
- Provide assistance in the maintenance of system software by resolving bugs, updating software to accommodate system changes, and patching builds.
- Assist in the preparation and the review of product, engineering, and management plans and reports.
- Continue to develop skills and expertise as required in areas of software development, signal and image processing, and biomedical engineering.
- May research, write and edit specifications for software tools, evaluate and make recommendations to management.
- Provide recommendations to the software team about current trends, processes, and innovations in the software industry to aid in improving the effectiveness, efficiency, and productivity of the team.
- Advises the Project Team Leader concerning weak areas of core group competency required for the completion of tasks and projects, and present ideas to strengthen these areas.
- Assist management in hiring process of new team members by providing technical evaluation/assessment of applicant's skills as required.
- Provide mentoring for junior software developers.
- Working effectively in collaboration with other members of the department, or with managers and staff across the organization with whom tasks must be completed.
- Working in a safe manner so as not to endanger individual health and safety, or the health and safety of others.
- Take all reasonable precautions to protect VSI corporate assets, including proprietary and confidential information.
- Complying with all legal requirements, all corporate policies and procedures, and with generally accepted business and ethical practices.
- Performing other duties as assigned by the Project Team Leader

Relationships

The position reports directly to CEO/CSO or designated management team member. The Software Developer must promote positive and effective working relationships internally and externally including outside vendors and consultants.

Knowledge, Skills, and Experience Required

Education:

- Undergraduate Degree in Computer Science, Electronics Engineering, Computer Engineering or related field or equivalent experience.

Knowledge and Experience:

- Minimum of 7 years' experience architecting, designing and developing software in 'c', 'c++', objective 'c', and Java for Web Applications, MS Windows, Linux, iOS and Android Platforms.
- Experience with writing interface applications for medical devices
- Experience with inter-systems communication with real time constraints (e.g. achieving memory transfers within a specific time window, operating system interactions with embedded processors and memory locations)
- Knowledge of Image Signal Processing using OpenCV or equivalent signal processing libraries.
- Knowledge of Machine learning/Artificial Intelligence software techniques.

- Ability to work independently and self-manage within a dynamic team environment.
- Ability to work within ISO 134985 regulations and an established Quality System
- Ability to work within IEC 62304 Medical device – Software Life cycle Processes
- Excellent written and oral communication skills.
- Experience in a clinical or research environment is an asset
- Experience with medical software development under FDA, EU GMP, and ISO 13485, HIPPA, DICOM

Skills:

- Excellent English communication skills, both verbal and written.
- Excellent interpersonal communication skills and judgment.
- Excellent presentation skills.

Attributes:

- Ability to prepare high quality and reliable deliverables while working quickly, calmly, and effectively under pressure from time constraints and deadlines.
- Ability to work effectively as part of a team, as well as independently when necessary.
- Ability to respond to urgent situations appropriately by prioritization.
- Ability to follow-up on issues without guidance.
- Accuracy and strong attention to detail
- Ability to take initiative

Disclaimer

The above information on this job description and specification has been designed to indicate the general nature and level of work performed by employees within this job. It is not designed to contain or be interpreted as a comprehensive inventory of all duties, responsibilities, and qualifications required of employees assigned to this job.