



Job Description

Title: Principal Software Engineer / Technical Lead

Department: Echologics – R&D

Reports to: Vice President R&D

Job Objective: Software development and technical leadership for Smart Leak Detection products.

Toronto-based Echologics Engineering Inc. is a leader in the development of acoustic technologies that can cost-effectively detect leaks and assess the condition of water mains—without breaking ground. A subsidiary of Mueller Water Products, Echologics has worked with municipalities across North America, and in Europe, South Africa, Singapore and Australia to prioritize water system repairs and improve water conservation.

The Principal SW Engineer / Technical Lead is highly motivated, proactive, detail oriented, and possesses strong communication and leadership skills. The successful candidate possesses a professional demeanor and ability to work very closely with all cross functional and remote organizations ensuring that the entire development is well orchestrated.

Responsible for all aspects of the full system, software development, and product lifecycle from technical requirements and design documentation through QA, production release, and field support. This is a multi-faceted role as Technical Lead, SW Architect and Developer, and key contributor to a growing R&D organization. This person wants to take ownership of the product's SW architecture and platform.

Responsibilities:

- Full software development life cycle responsibility including; technical requirements, design documentation, coding and code reviews/inspections, software verification testing, system integration, and debug of software system issues.
- Drive and establish best practices and development processes to ensure successful new product developments as measured by timeliness, quality, product cost, and investment.
- Key participant in system/solution architecture and design to translate customer/market needs into a fully realized product and/or services solution.
- Extensive hands-on software architecture, design, and development experience across a number of successful commercial products.
- Manage and balance schedules and resource allocations against multiple high priority/competing activities.
- Lead the product development team for host/web based software and acoustical analysis software including research, analysis, and development activities.
- Work with HW, SW, FW, and technical acoustical experts to research, test, and develop host based acoustical analysis software and DSP based algorithms.
- Management and coordination of 3rd party contractors/developers including requirements, planning, design, system integration and test, etc.
- May involve personnel management for R&D/development team.
- Working knowledge of data networking and communications protocols especially as applied to radio networks and WAN (wide area networks). Knowledge of cellular data networking and associated protocols desirable.
- Knowledge of water transmission and distribution infrastructure and techniques utilized for monitoring pipes or similar industry experience desirable.
- Willingness / Ability to travel both domestic and international. Estimated up to 10%.

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Job Specifications:

Technical knowledge

- 5+ years object oriented design and programming including solid server backend design and development experience.
- 5+ years of progressive system/application software development, and technical leadership.
- Overall 10+ years of software dev experience
- Understanding of digital signals processing platforms.
- Experience with development on embedded devices.
- Strong web application design and development experience using VB.NET, C# and ASP.NET
- Solid experience with SQL server DB design and stored procedures.
- Experience with basic windows server configuration and maintenance, windows audio interfaces, and ESRI or other GIS applications is desirable.
- Expertise with configuration management tools such as VSS and bug tracking systems such as bugzilla.
- Strong documentation skills.

Experience

- Extremely proactive/hands-on approach to managing complex and dynamic multi-site projects with an ability to work across boundaries and establish relationships with key stakeholders. Ability to adapt quickly and assess changing priorities. Constant focus on delivering high quality and on-time results.
- Strong analytical and problem-solving skills. Ability to solve problems as part of a multi-site organization and cross functional team is expected.
- Ability to work in and take a leadership role in a collaborative, team-based environment. Able to work in cross-discipline development environment with hardware, software, mechanical/packaging, QA, etc. for the entire development and product life cycles.
- Extensive new product development management skills with ability to work with other leads, managers, and executives to balance project scope, resources, investment, risks, and time-to-market.
- Excellent written and verbal communications skills.

Education

- BS, CE, or CS or similar degree. MS degree is desirable.