



GEOMETRICS

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Senior Embedded Software Engineer

Overview

Geometrics, Inc., a world-leading developer and manufacturer of instruments and tools for measuring and analyzing geophysical structures and other complex systems, seeks a Senior Embedded Software Engineer for its San Jose, CA facility. This engineer will work in the Software Engineering Group, which develops the software stack all the way from the sensor driver to end-user tools.

This engineer will perform some or all of the following tasks:

- Participate in the design, implementation, and testing of our embedded data acquisition systems, in the geophysics, bioelectrical, and security/monitoring application domains.
- Write code for embedded systems running real-time operating systems (RTOSs) and Linux. These systems interact with other pieces, including other embedded programs and OS-hosted programs running on a variety of computing platforms including mobile and cloud-based.
- Contribute to the architecture, design, and implementation of our complete products, which are distributed, IOT-based applications that include our embedded systems as well as related OS-hosted pieces.
- Work closely with other engineering staff and with marketing staff to take systems from marketing requirement to specification to functioning product.
- Work primarily in C++ and C, and if qualified in Verilog or other hardware description languages
- Use various numerical, signal processing, and other libraries and tools
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The candidate will have the following qualifications:

- At least 4 years of demonstrated industry experience and knowledge in the design and implementation of embedded software, with a history of shipped products.
- Technical ownership of a system or subsystem in a commercial product that included integration with other, internal or external software systems or components.
- Experience with sensors – for example ADCs; a candidate should be able to discuss the role of SPI, I2C, and other communications interfaces
- Some experience with solving problems relating to the connection and synchronization of embedded systems with other pieces, using some communication mechanism or protocol – I2C, SPI, MQTT, TCPIP, shared memory, etc.
- A successful candidate will be able to discuss a particular processor or family of processors in some detail, including peripherals either on- or off-chip. Our embedded systems currently under development run on ARM and DSP processors and FPGAs from Texas Instruments, Microchip, Xilinx, and other manufacturers. Knowledge of those

systems would be helpful, but we believe that the techniques of embedded development transfer well across chips and chip families.

- Some experience with provisioning, bootloaders and firmware upgrade techniques
- Experience in signal processing will be viewed favorably.
- Excellent verbal and written communication skills, in English.
- Master's degree (or three years additional practical experience) in engineering or computer science.

In consideration of the physical demands, we have included the minimum physical requirements.

- Ability to work in excess of a 40-hour week if necessary.
- Ability to sit, walk, and stand in an office, conference room, and other work environments.
- Must have manual dexterity to operate scientific instrumentation, computer keyboard, and standard office equipment.
- Ability to review and input information/data on a computer (up to 8 hours a day with breaks).

This position may be modified from time to time to meet Geometrics business needs.

We offer a dynamic, challenging environment and a comprehensive benefits package.

To apply, please send your resume and cover letter to: **careers@geometrics.com**. Please put “embed2017” and your name in the subject line. At this time, Geometrics is not able to sponsor applicants for work visas.

Equal Opportunity Employer /Minorities/Females/Vet/Disabled