Embedded Firmware Engineer

Umbra Lab, Inc. is a Santa Barbara, CA space company developing next-generation space systems. We are looking for mission driven professionals to join Umbra Lab. Join our team to embark on an exciting, innovative and meaningful career. Every team member can have a significant and essential impact, and career growth is unlimited. The commercial remote sensing industry is experiencing meteoric growth – this is a chance to change how humans and machines use data from space.

We are looking for a talented, mission-driven professional to work closely with a multidisciplinary engineering team as a Senior Embedded Firmware Engineer (Space Systems), developing C and C++ based firmware supporting next generation space radar systems. The individual filling this position will collaborate with the electrical engineering and systems engineering team to develop, analyze, manufacture, and test embedded microprocessors and related subsystems.

Key Responsibilities

- Develop C and C++ based firmware for embedded microcontroller based subsystems.
- Work with engineering team to develop state machines and protocols interfacing with external equipment.
- Work with engineering team to develop real-time software for command and telemetry processing.
- Rapidly develop prototypes to iteratively improve hardware and firmware.
- Prepare engineering documentation, reports, and test plans.
- Interface with vendors as the technical representative and subcontracts manager.

Basic Qualifications

- Bachelor of Science in relevant discipline such as computer software or electrical engineering.
- Knowledge of foundational physics, electrical engineering and digital design concepts.
- 2+ years developing embedded firmware in the C and C++ languages.
- Working knowledge of firmware development, including use of timers, interrupts, hardware peripherals such as SPI controllers and ADCs, bootloaders and debug tools.
- Solid understanding of standard physical layers for digital communication (UART, LVDS, SPI, and I2C)
- Familiarity with test and debug tools such as oscilloscopes, logic analyzers, and USB-to-Serial Cables.

Desired Qualifications

- Experience developing MCU and SoC firmware in the C programming language.
- Comfortable developing in Atmel Studio, Code Composer Studio or similar environment.
- 5+ years developing embedded firmware in the C and C++ languages.
- Design, layout and manufacture of microcontroller based printed circuit boards.

Additional Requirements

In compliance with federal law, all persons hired will be required to verify identity and eligibility to work in the United States and to complete the required employment eligibility verification form upon hire. All persons hired will be required to be a U.S. citizen, a lawful permanent resident of the U.S., or protected individual as defined by 8 U.S.C. 1324b(a)(3), or eligible to obtain the required authorizations from the U.S. Department of State.

Benefits

- Professional Work Environment
- Flexible Vacation / Paid Time Off Policy
- Medical, Dental, Vision, 401(k)
- Stock Options

About Umbra Lab, Inc.

Umbra Lab, Inc. is a venture-backed space company developing next-generation space systems. We are looking for mission-driven professionals to join Umbra Lab. We are building a bold, experienced team of payload developers and spacecraft systems engineers to aggressively expand the state-of-the-art for commercial remote sensing. Join our team to embark on an exciting, innovative and meaningful career. Every team member will have a significant and essential impact, and career growth is unlimited. The industry is just beginning meteoric growth – this is a chance to change how humans and machines use data. To apply: Email resume to careers@umbralab.com