UMBRA

Flight Software Engineer

Umbra Lab, Inc. ("Umbra") is a technology company which builds next-generation space systems. Umbra is launching an unrivaled constellation of space-based radar satellites with synthetic aperture radar (SAR) capabilities, to produce all weather day-night imagery with sub-meter resolution for low cost distribution via an integrated web platform. We are a bold, experienced team of developers, engineers, product specialists, and other professionals working to aggressively expand the state-of-the-art for commercial remote sensing.

We are looking for an experienced flight software engineer to contribute to the delivery of embedded flight software in support of Umbra missions. The Flight Software Engineer will be responsible for requirement development, software architecture and design, code development, system integration, and testing. The Flight Software Engineer will also provide expertise in software design, code development, peer review, documentation, and integration with flight hardware through unit testing.

Key Responsibilities
- Collaborate with a multi-disciplinary engineering team to design, develop, and maintain reliable, and fault tolerant flight and payload software
- Implement software to meet requirements while managing interfaces with multiple spacecrafts subsystems and ground systems hardware
- Develop command and control software for spacecraft flight and payload electronics
- Develop and participate in test campaigns ranging from unit-level to automated testing at the subsystem and system-level
- Develop documentation for operation and interface with software products

Basic Qualifications
- Engineering degree in computer science, electrical engineering, computer engineering, or equivalent
- 3+ years of demonstrated applicable experience in high reliability software development
- Experience with Xilinx development environments: SDK, Vitis, PetaLinux, Vivado
- Software development expertise in embedded environments, working with: C, C++, Python
- Experience programing on embedded ARM cores supporting SoC architectures and working in a Linux or bare-metal environment
- Understanding of processor architecture and writing code to optimize for speed and size
- Experience with software development processes including source control, bug tracking, and design documentation
- Comfortable working in a dynamic and fast-paced development environment

Desired Qualifications
- Advanced degree in Software Engineering and 5+ years experience
- Knowledge of Ethernet, SPI, I2C, UART, and PCIe interfaces
- Experience with software running in autonomous, fault critical systems
- Extensive experience developing, deploying and maintaining software product lines
- Background in dynamics and control systems

Benefits
- Flexible Vacation / Paid Time Off
- Medical, Dental, Vision, 401(k)
- Stock Options

Location
- Santa Barbara, CA

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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. Umbra is an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability status, protected veteran status, or any other characteristic protected by law.

To apply: Email resume to careers@umbralab.com