Principal Engineer Embedded Software

Location	San Diego, CA
Work Arrangement	Full-Time, On-Site
Travel	Limited travel may be required – 10%
Clearance	Secret

Grit Government Solutions is currently looking for a Principal Engineer Embedded Software for its customer based out of San Diego, CA.

Responsibilities:

- Design, develop, integrate and test software for our end-user customers and businesses, primarily focused on cryptographic software code bases.
- Responsible for the design, architecture, development, and administration of embedded and real time systems. You will work with multi-disciplinary teams, such as with Systems Engineering, Digital Engineering, Hardware, and Integration & Test, in an Agile software development environment.
- Analyze system capabilities to resolve problems on program intent, output requirements, input data acquisition, programming techniques and controls.

Basic Qualifications:

- Bachelor's degree in Computer Engineering or another STEM discipline with 5 years of related experience, or Master's degree with 3 years or a PhD with 1 year of experience
- Proficient in C/C++
- Proficient in Object Oriented programming
- Proficient in all areas of the formal software lifecycle process from requirements to testing
- Experience integrating low-level firmware and software in complex real-time multi-threaded embedded applications
- Experience with developing and debugging embedded real-time systems.
- Familiarity with Static Analysis and Unit Testing
- Experience using Jira/Bitbucket/Git and the Agile software development process
- Must be able to obtain a U.S Department of Defense (DoD) Secret level security clearance
- Ability to work full-time onsite at our Rancho Carmel location.

Preferred Qualifications:

- Experience in testing and troubleshooting Link16 waveform in an embedded software environment
- Hands-on experience with lab equipment such as Tactical Datalink radios/terminals
- Familiarity with the Link 16/TACAN Waveform ICD
- Experience with Software Defined Radios
- Experience with the Avionics Operating System
- Experience with Xilinx platforms (Zynq, Ultrascale+, and VERSAL)
- Experience with Yocto/Petalinux
- Experience with Communication Protocols (I2C, SPI, UART, PCIe, Ethernet)
- Experience with TCP/IP and common network configurations
- Experience implementing cryptographic mechanisms using dedicated software libraries

- Experience with Rust
- Familiarity with Xilinx tools (Vitis, Vivado)
- Familiarity with HAIPE, OTNK, and/or IKE
- Familiarity with latest NSA Security Standards
- Familiarity with Linux kernel driver development/modifications
- Familiarity with assembly language
- Familiarity with bare metal embedded device drivers
- Familiarity with PowerPC architectures and peripherals
- Familiarity with VHDL/Verilog/FPGA
- Familiarity with IBM tools (Rhapsody, DOORS, Clearcase
- Familiarity with Green Hills AdaMulti
- Current active Secret or Top Secret Clearance
- Current active SAP clearance
- Currently engaged in Networked Information Solutions program portfolio(s