SANDEN
High Assurance Services, Inc.

Embedded Software Engineer — Prototype & Systems Integration (Rust/C/C++)
Location: Tampa, Florida
Clearance: Active U.S. Secret Clearance Required
Start: May 2026
Salary Range: $120,000 – $165,000

Who We Are

SHA Services is a small, engineering-focused company that designs and prototypes mission-critical systems for U.S. government and defense related customers. We specialize in early-stage and high-risk technical efforts — the type of work that typically occurs *before* large defense programs exist.

We are not a staffing firm and not a sustainment contract.
Our team builds first-of-kind systems, integrates them in the lab, tests them with real hardware, and solves the problems that appear when theory meets reality.

Engineers here routinely:

- bring up new boards and embedded devices

- debug real hardware timing and networking issues

- work directly with system architects and end users

- influence system architecture and design decisions

- convert legacy systems into modern, secure implementations

You will be working with both **prototype and production hardware**, not simulations or paperwork.

If you enjoy ambiguous technical challenges, root-cause debugging, and building working systems rather than maintaining existing ones, you will likely enjoy this role.

What You'll Actually Work On

This position focuses on developing and integrating embedded software for secure, networked systems operating on constrained platforms.

Typical projects include:

- Embedded device bring-up and hardware integration

- Converting legacy C/C++ embedded codebases into memory-safe Rust implementations

- Real-time communications across networked devices

- Debugging timing, synchronization, and reliability problems

- System test automation and instrumentation

- Integration of secure networking protocols

- Supporting lab and field test events

- Diagnosing failures across the software–hardware boundary

Much of the work occurs in a lab environment where engineers can directly observe system behavior, connect instruments, capture signals, and iteratively improve designs.

Engineering Environment

- Small technical team (not siloed)

- Direct interaction with customers and system designers

- Access to lab hardware and instrumentation

- Engineers influence architecture, not just implementation

- Emphasis on practical problem solving over documentation

- Ability to follow a problem across firmware, OS, and network layers

This is a hands-on engineering role, not a program management or maintenance position.

Responsibilities

- Design, develop, and debug embedded software on Linux and RTOS-based systems

- Implement and migrate embedded applications in Rust, C, and C++

- Bring up new hardware platforms and troubleshoot system integration issues

- Develop automated tests and diagnostic tools using Python

- Analyze network communication and performance across distributed systems

- Investigate field and lab failures and determine root cause

- Collaborate with electrical engineers, system architects, and test personnel

- Support integration and test activities with real devices and equipment

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Required Qualifications

- 3–5 years experience (Mid-level) or 8+ years (Senior) in embedded software development

- Strong C/C++ programming experience on embedded or Linux systems

- Experience debugging real hardware systems (not only simulations)

- Familiarity with networking fundamentals (TCP/IP, sockets, packet behavior)

- Linux development environment and shell proficiency

- Ability to troubleshoot problems spanning software, OS, and hardware interaction

- Active U.S. Secret clearance and U.S. citizenship

Preferred Qualifications

- Experience with or strong interest in Rust for embedded/systems programming

- RTOS experience

- Python for test automation and analysis

- Experience using lab tools (logic analyzers, oscilloscopes, packet capture)

- Knowledge of secure or safety-critical systems

- FPGA or hardware interface familiarity

- Cryptography or secure communications exposure

Growth & Career Path

Engineers at SHA Services gain exposure to full systems rather than isolated components. This role offers the opportunity to develop into:

- technical lead roles

- system architecture

- secure embedded systems development

- advanced prototyping and integration engineering

Our engineers are involved early in system design and often see projects progress from concept through operational use.

Compensation & Benefits

- Salary: $120,000 – $165,000

- 25% company retirement contribution through profit sharing (no employee match required)

- 25% company contribution to an Individual Benefits Account (health and benefit flexibility)

- Flexible PTO

- Direct access to leadership, mentors, and decision makers

Why This Role Is Different

Many embedded jobs involve maintaining existing software inside large programs. This role focuses on **building and making systems work**.

You will:

- work with real hardware

- solve problems without predefined answers

- see the impact of your engineering decisions

- avoid being siloed into a narrow component

If you prefer creating and debugging systems over writing documentation and attending status meetings, this position is likely a strong fit.

To apply, please submit a resume to Kaysi.Sanden@SHA-Services.com along with a short description of a difficult technical problem you solved related to this job posting and how you approached it.