

**Job Title:** Senior Software Engineer (Embedded Systems - HVAC Control)

**Location:** Omaha, Nebraska

**Job Type:** Full-time

**Salary:** \$60 to \$95k depending on Experience/qualification

**Job Summary:**

We are seeking an experienced **Senior Software Engineer** with expertise in **C/C++ programming** for **embedded systems** to develop and maintain control software for **HVAC control systems**. The ideal candidate will have hands-on experience with **Keil C for microcontroller programming** and **Embedded Linux development**.

**Key Responsibilities:**

- Design, develop, and maintain embedded software for HVAC control systems.
- Program microcontrollers using **C/C++ in Keil C** and work with **Embedded Linux** for system-level programming.
- Develop, test, and debug real-time embedded software on **ARM-based or other microcontroller platforms**.
- Integrate **RTD1K, NTC10K, 0-10V/4-20mA pressure differential sensors**, and other HVAC-related peripherals.
- Optimize software for performance, memory efficiency, and power consumption.
- Work closely with hardware engineers to ensure seamless integration of software and hardware components.
- Develop communication protocols such as **UART, I2C, SPI, Modbus, and CAN bus**.
- Implement safety, security, and reliability features in embedded systems.
- Conduct software testing, validation, and verification in compliance with industry standards.
- Work closely with **HVAC Project Engineers** to troubleshoot and resolve controller-related issues onsite.
- Provide technical support during field testing, commissioning, and maintenance phases.
- Support and maintain **HVAC server platform systems**, including setting up controllers within the system and debugging/fixing system issues.

- Prepare technical documentation and provide support for production and field deployment.

#### **Qualifications & Experience:**

- **Bachelor's or Master's degree in Electrical Engineering, Computer Engineering, or a related field.**
- **5+ years of experience** in embedded software development, preferably in HVAC or industrial control systems.
- **Strong proficiency in C/C++ programming** for embedded applications.
- Experience with **Keil C for microcontrollers (ARM Cortex, STM32, or similar platforms).**
- Experience developing for **Embedded Linux**, including kernel-level development and device drivers.
- Hands-on experience working with **RTD1K, NTC10K, and analog/digital sensors.**
- Knowledge of **control algorithms, PID control, and real-time operating systems (RTOS).**
- Familiarity with **Git, Gitee, SVN, or other version control systems.**
- Strong problem-solving skills and ability to troubleshoot software-hardware integration issues.
- Experience with **wireless communication protocols** (Wi-Fi, Bluetooth, Zigbee) is a plus.
- Good documentation and communication skills.

#### **Preferred Skills:**

- Experience with **IoT technologies and cloud-based monitoring solutions.**
- Familiarity with **PLC programming and industrial automation protocols.**
- Experience in **low-power embedded design and optimization.**
- Knowledge of **cybersecurity principles in embedded systems.**

#### **Benefits:**

- Medical and dental insurance
- Paid Time Off and Holidays
- Opportunities for professional development and career growth.

- Collaborative and innovative work environment.

How to Apply:

**Application Process:** Interested candidates should submit their resume and a cover letter to Indeed.com/email to [bkuich@bes-tech.net](mailto:bkuich@bes-tech.net)

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This job description ensures that candidates have the necessary skills and experience to contribute effectively to HVAC control system development, including onsite troubleshooting with HVAC project engineers. Let me know if you'd like any modifications!