Name: Laxman S Hosakoti

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Location: Vijayapur, Karnataka, India - 586108

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Professional Summary:

Self-motivated Embedded Software Engineer with 2 year of hands-on experience in firmware development, device driver integration, real-time system debugging, understanding of FreeRTOS, understanding of arm architecture. Seeking to contribute innovative embedded solutions.

Technical Skills:

- Languages: C, Embedded C, Python (Advance),
- Protocols: UART, I2C, SPI, BLE (Basic), CAN (Basic)
- RTOS: FreeRTOS
- Microcontrollers: STM32, NXP (NXH 2004), Qualcomm (QCC 5141)
- Tools & IDEs: MCUXpresso, STM32CubeIDE, MDE WIN (Qualcomm tool)
- Debugging Tools: Oscilloscope, Logic Analyzer
- Version Control: GitHub

Professional Experience:

Junior Embedded Engineer

Drowsy Digital India Pvt Ltd, Bangalore, Karnataka, India.

June 2024 – April 2026

Key Responsibilities:

- Firmware development using Embedded C
- Validating newly added features
- Debugging both hardware or software issues
- Manual/automation testing

Projects:

Sensor Integration Using I2C with Interrupt Configuration:

- Integrated accelerometer sensor over I2C protocol.
- Configured data ready interrupt (raw accel data) and double tap interrupt
- Used raw accel data to detect motion matrix and double tap interrupt for alarm control

UART Communication Using DMA:

- Implemented high-speed UART communication using Direct Memory Access (DMA)
- Achieved efficient non-blocking data transfer
- Reduced CPU usage during serial communication

Generic I2C Register Read/Write Driver:

- Developed reusable Embedded C function for generic register read and write operations over the I2C protocol
- Enabling communication with multiple peripheral devices using a common API

BLE GATT Implementation Using ESP32:

- Developed a Bluetooth Low Energy (BLE) communication system on ESP32.
- Enable data exchange between the ESp32 device and mobile application.

Python Automation Tools:

- Developed python tools “test all manufacturing commands” and “test factory commands”
- Manual testing usually takes 4 to 5 hours to complete the test, tool reduced test time to 20 minutes maximum and also human effort.

Education:

Bachelor of Engineering in Electrical and Electronics

Basaveshwar Engineering College, Bagalkot, Karnataka, India – 587101

Year of Graduation: 2023

CGPA: 6.5/10

Certifications:

- Emertxe Certified Embedded Professionals – Emertxe Technologies (2023-2024)
- Python basics – Geeks for Geeks (2025)

Soft Skills:

- Quick learner
- Good communication skill
- Team player
- Documentation and reporting