

Hariharan S

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Objective

To secure an Embedded Engineer position where I can leverage my expertise in microcontroller programming, embedded C, PCB design, and embedded systems development in a challenging technical environment.

Education

- B.Tech in Mechatronics (Correspondence)

Indian Institute of Engineering and Research

(IIER) Expected Completion: 2025

- Diploma in Mechatronics Engineering

Nettur Technical Training Foundation (NTTF), Hosur

Duration: 2019 - 2022

- SSLC

Parimalam Matriculation School, Hosur

Duration: 2019 - 2022

Certifications

- Embedded Systems Course, IPCS Global, Bangalore (April 2023)

Experience

Intern, Embedded Engineer

Innovatios Technology (June 2024 - Present)

- Assisted in firmware development for STM32, ESP32, and other microcontroller-based systems.
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- Implemented real-time communication protocols such as UART, I2C, and SPI in embedded projects.
- Contributed to system design and optimization with a focus on embedded C programming and hardware-software integration.

Technician

Page Industries LTD (April 2022 - October 2023)

- Conducted machine maintenance and PCB repair, ensuring smooth operation in production environments.
- Diagnosed and repaired embedded systems components, reducing downtime by 20%.
- Collaborated with cross-functional teams to optimize equipment performance.

Projects

- **Automated Bread Slicing Machine:** Built using conveyors, Arduino, and sensors.
- **LED Dot Matrix Display:** Developed an 8x32 Dot Matrix display controlled by ESP8266, enabling Wi-Fi connectivity.
- **Wireless Power Bank:** Designed using copper wire, transistors, and a rechargeable battery.
- **LVGL Display:** Implemented graphical interfaces using ILI9341 and ST7789 displays, ESP32, and the LVGL Image Converter.
- **Door Security Alarm:** Created using ESP32 and a magnetic sensor, sending notifications via Telegram.

Skills

Programming Languages:

C, Embedded C, Python, Linux commands

Embedded Systems:

STM32, ESP32, ESP8266, Arduino, NRF, Raspberry Pi

Communication Protocols:

SPI, CAN, UART, I2C, ADC, DAC

Software Tools:

Keil, CubeMX, CbelIDE, ESP IDE, Visual Studio, Eagle PCB, Linux, Termite, Square Line Studio

Hardware:

PCB Soldering, Circuit Design, PCB Repair