

Jinobin S U

Embedded Systems Engineer

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EDUCATION

B.E Electrical and Electronics Engineering
Stella Mary's College of Engineering

08/2021 - 05/2025 | Nagercoil

Embedded Systems Course – Emertxe Information Technologies
Emertxe Information Technologies

06/2025 - 02/2026

- Completed Embedded Systems training on C Programming, Object-Oriented Programming (OOP) in C++, Microcontrollers, and Linux Internals.
- Learned Linux command-line operations, basic shell concepts, and shell scripting fundamentals.

PROJECTS

Electric Vehicle Wireless Charging Station (Final Year Project)

- Designed and developed an Electric Vehicle Wireless Charging Station using inductive wireless power transfer.
- Used a step-down transformer to convert 230V AC to 12V AC for the charging circuit.
- Implemented a bridge rectifier to convert AC into DC for battery charging.
- Transferred power wirelessly using transmitter and receiver coils and stored the DC power in the battery.

Address Book

Technologies: C Programming, File Handling, Structures

- Developed a console-based address book application in C.
- Implemented features to add, search, edit, delete, and list contact records.
- Used structures and file handling for persistent data storage.

Car Black Box

Technologies: Embedded C, PIC Microcontroller, MPLAB X IDE, XC8 Compiler.

- Developed a Car Black Box application using Embedded C on a PIC microcontroller.
- Implemented secure password authentication and a menu-driven interface.
- Displayed event logs and system information on a CLCD.
- Developed, compiled using MPLAB X IDE and the XC8 Compiler.

INTERNSHIP EXPERIENCES

IoT and Edge AI Internship
Program Brain Academy

- Completed hands-on internship training in Internet of Things (IoT) and Edge AI.
- Worked with Arduino and ESP32 microcontrollers to develop IoT-based applications.
- Learned and implemented the MQTT protocol for device-to-device and device-to-cloud communication.
- Interfaced sensors and peripherals with microcontrollers for real-time data acquisition and monitoring.
- Gained practical knowledge of wireless communication, and IoT system development.

TECHNICAL SKILLS

- Programming Languages:** C, C++ (OOP)
- System Programming:** Linux Internals, Linux Shell
- Embedded Systems:** Embedded C, PIC, Arduino, ESP32, GPIO, Interrupts, ADC, PWM
- Communication Protocols:** UART, SPI, I²C, MQTT
- Networking Protocols:** TCP/IP, UDP/IP
- Tools & Technologies:** Arduino IDE, MPLAB X IDE, XC8 Compiler, Visual Studio Code

LANGUAGES

Tamil | English