

Sreenivasulu Y

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OBJECTIVE

Looking to work in an organization that can provide a variety of opportunities that allow me to expand my skills and knowledge while working towards achieving the organizational goals.

TECHNICAL SKILLS

- **Languages:** C, C++, Embedded C, Data Structures
- **Hardware Architecture:** ARM7, 8051, ESP32, STM32, Raspberry Pi
- **Bus Communication Protocols:** UART, I2C, SPI, RS232, RS-485, CAN
- **Operating Systems:** Linux, Raspbian, RTOS
- **Wireless & Network Protocols:** TCP/IP, Socket Programming, MQTT, LoRa, Wi-Fi
- **Database:** SQLite3
- **Development Tools and IDEs:** Git, GitHub, VS Code, Arduino IDE, STM32CubeIDE, kiel IDE.
- **Hardware Testing & Integration:** PCB Testing, Hardware Schematics, Power Supplies, Sensors Integration, Embedded Device Testing

PROFESSIONAL EXPERIENCE

Embedded Software Developer

Nav Prayukti Pvt. Ltd., Guwahati, Assam

May 2024 – Present

- Developed middleware software for Agriculture IoT systems using C++, enabling real-time data collection from soil and air sensors.
- Integrated sensors and actuators to automate agricultural processes, enhancing precision and efficiency.
- Implemented LoRa-based communication between main and sub-nodes for reliable, long-range wireless connectivity in field deployments.
- Utilized MQTT protocol to transmit sensor data from edge devices to cloud servers for monitoring and analytics.
- Designed a robust database using SQLite3 for secure IoT data storage and retrieval, ensuring scalability and smooth operations.
- Utilized Linux threading and C++ classes to optimize system performance and enable concurrent processes.
- Managed hardware integration, including power supplies, relays, and PCB soldering, ensuring reliable system functionality.
- Collaborated with cross-functional teams to test and deploy IoT solutions, improving agricultural productivity through real-time data insights and automation.

PROJECTS

Body Control Module — CAN protocol

The Body Control Module (BCM) is a project focused on creating a car’s electronic control unit, serving as the central processor for various body-related functions. This module receives inputs from diverse devices, enabling it to manage and coordinate tasks like lighting, power windows, door locks, and wipers. Essentially acting as the vehicle’s electronic brain, the BCM enhances overall functionality and safety by efficiently processing and controlling these essential features.

Performance Analysis of Multiplexer Based Fulladders — Cadence tool

In this VLSI project, we constructed a full adder circuit using multiplexers instead of basic logic gates. The primary aim was to minimize leakage current and achieve optimal power and speed. We also compared the performance of full adder circuits across different technologies, including 180nm, 90nm, and 45nm, in terms of delays and power consumption.

EDUCATION

2023	BTech(ECE) at SV College of Engineering	(75%)
2019	Class 12th BIEAP	(98%)
2017	Class 10th BSEAP	(93%)

CERTIFICATIONS

- Certified 6-month course in Embedded Systems from Vector India Institute, 2024.
- Certified Cisco Networking Academy (CCNAV7), 2022.