

JAGAN LAKSHMIPATHY

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PROFILE

Highly motivated Embedded Engineer with 2+ years of experience in developing innovative IoT solutions, embedded firmware programming, testing, debugging and systems troubleshooting. Proficient in Embedded C, micro-controller integration, and communication protocol like(I2C, UART, Modbus RTU over RS-485). Proven track record of delivering custom IoT and embedded solutions that meet client needs and deploying embedded systems on-site.

SKILLS

- **Programming Languages:** Embedded C.
 - **Microcontrollers :** CC1352, MSP430, Quectel MC60, Tiva-C, STM32.
 - **Communication Protocols:** I2C, UART, Modbus RTU(Over RS-485).
 - **Networking And Wireless Protocols :** MQTT, Sub-1GHz RF.
 - **Development And Debugging Tools :** EAGLE (PCB Schematic Analysis), JTAG, Energia ,Code Composer Studio(CCS),STM32Cube.
 - **Operating Systems :** Developing skill in Real-Time Operating System(FreeRTOS).
 - **Project Management & Documentation :** Research & Development for embedded solution, IoT device deployment,client needs assessment,technical documentation.
 - **Certifications :** Introduction to IoT and Embedded Systems(Coursera), Embedded C (Udemy).
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EXPERIENCE

KARIOT SOLUTIONS PVT.LTD

MARCH 2022 - SEPTEMBER 2024

IOT DEVELOPER

- Selected and optimized microcontrollers for new product lines, reducing project costs by 10% and enhancing device efficiency.
- Executed end-to-end testing, debugging, and troubleshooting on embedded system for real-time application, achieving a 95% resolution rate for technical issues.
- Integrated IoT-based solutions within client environments, ensuring seamless operation and achieving a 100% functional compliance rate.
- Conducted site visits to assess client requirements and managed IoT device installations, reducing setup time by 15%.

NTT DATA

OCTOBER 2021 - FEBRUARY 2022

CUSTOMER CARE COLLECTION SR.REP

- Liaised with insurance representatives regarding claims and achieving 20% faster authorization approvals.
 - Communicated effectively with insurance representatives to verify coverage, obtain authorization for procedures, and resolve billing discrepancies.
 - Documented thorough insurance information and follow-up billing messages.
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EDUCATION

PERI INSTITUTE OF TECHNOLOGY

BACHELOR OF ENGINEERING : ELECTRONICS AND COMMUNICATION

2016 - 2020

PROJECTS

1. Motor Automation and Valve Automation

- Developed an automated system for controlling motor and valve operations for two Overhead Tanks (OHT) simultaneously using real-time clock (DS3231 RTC) based scheduling.
- Implemented logic to automatically switch the motor on and off based on the water level in the tanks using float sensors for water level monitoring, ensuring efficient water management. Achieved a 20% reduction in water wastage.
- Chose and integrated a solar panel system to power the device, making it fully solar-operated and Eco-friendly solution.
- Established communication between the Two OHT tanks and motor device using MQTT protocol, enabling seamless coordination and control.

2. Flowmeter Monitoring

- I involved in the development of a flowmeter monitoring system to measure water flow using RS-485 communication through MODBUS RTU.
- Implemented both Gateway and Node devices to reducing project costs by 25%. Gateway and Node devices communicates each other using Sub-1GHz wireless communication.

3. Beehive Monitoring

- Spearheading the development of a beehive monitoring system to provide real-time data to farmers for better hive management.
- Integrated HX711 IC for precise measurement of beehive weight and SI7021 IC for monitoring temperature and humidity levels within the hive.
- The collected data enabling farmers to make informed decisions and optimize hive conditions. This analysis functionalities to track hive health over time and identify potential issues and it enhances beekeeping practices.

PROFESSIONAL OBJECTIVE

Eager to leverage my embedded engineering expertise and problem-solving skills in an innovative environment. Ready to contribute to impactful IoT and embedded solutions that enhance device functionality and meet evolving technological demands.
