

# Sharon P S

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## PROFESSIONAL SUMMARY

Embedded Software Engineer with 3+ years of experience in Firmware Development. Skilled in building projects and leading teams to deliver timely, high-quality results. Experienced in solving complex problems and creating effective, scalable solutions.

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## SKILLS

**Programming Languages:** Embedded c, FreeRTOS, Makefile, Device Driver ,Bootloader,IOT,ADC,PWM,BMS.

**Protocols:** I2C, UART, CAN,CANalyzer,Vector,CAN DB++,J1939,  
TCP/ IP,SPI,flash.

**IDE :** E2 studio ,Eclips, IAR , VS studio,GCC,GDB.

**Controllers:** 8/16/32 bit MCU RA2L1,Quectel,Nuvoton,ARM.

**Other Skills:** Git and Git hub, peak,E2 lite,Jira.

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## EXPERIENCE

### Embedded Software Engineer

Dec/2022 – Dec/2024

Transight System pvt.Ltd

- Developed COTA functionality for remote CAN configuration via wireless communication, reducing manual intervention by 30% and increasing system flexibility by 40%.
- Established UART communication between the EC200 module and RA2L1 MCU, streamlining the transfer and application of new configurations, reducing configuration time by 25%.
- Implemented flash memory management for secure storage and retrieval of configuration files, improving data access speed by 35%.
- Designed I2C drivers for seamless interfacing with the BQ34110 fuel gauge, enhancing communication reliability by 20%.
- Integrated firmware routines to monitor and retrieve SOC, voltage, current, and temperature data from the BQ34110, improving system monitoring accuracy by 15%.
- Resolved I2C communication issues, including unsealing the BQ34110 with proper security key sequencing, reducing troubleshooting time by 40%.
- Proficient in using CAN analyzers such as Peak, Vector Tool, and CAN dB++.

### Embedded Software Engineer

June/2019-Nov/2022

Srishti Robotics

- Designing, coding, testing, and debugging system software.
- Working with ATmega and ESP using Embedded C.
- Engineered an accelerometer-based gesture control system.
- Developed a Bluetooth-controlled car for remote operation.

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## EDUCATION

**Bachelor of Technology**  
Electronics and Communications Engineering  
Mahatma Gandhi University

**June/2014 - August/2018**

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## PROJECTS

### **CAN Configurator**

- Designed and implemented can configurator for easy use can protocol during running.
- Easley configure CAN message through OTA command.

### **State of Charge (bq3411)**

- Driver level Development using i2c protocol.
- Implemented secure state of charge system for proper maintain drone battery charge in every 5 second.