

Sharon P S

Kerala, Ernakulum 682010|+91 7994778574

[linkedin.com/in/sharon-p-s-9b77a31a4](https://www.linkedin.com/in/sharon-p-s-9b77a31a4)

pssharon090@gmail.com.

Immediate Joiner

PROFESSIONAL SUMMARY

Embedded Software Engineer with 4 years of hands-on experience in embedded development for medical, automotive, and industrial applications. Proven ability to design robust firmware solutions, integrate complex protocols (CAN, I2C, UART), and drive system-level optimization. Adept at real-time debugging, collaborating across teams, and delivering high-quality embedded solutions within deadline-driven environments.

SKILLS

- **Languages:** Embedded C, Embedded Linux, Driver Development, Python.
- **RTOS:** FreeRTOS
- **Communication Protocols:** I2C, UART, CAN, SPI, RS-485, RS232, ADC, and PWM.
- **Microcontrollers:** RA2L1, Quectel, EC200, Nuvoton, ATmega Series, ARM Cortex- M, Esp32, Esp8266.
- **Tools & IDEs:** Eclipse, e2studio, IAR, Arduino IDE, GDB, JTAG
- **Version Control & Collaboration:** Git, GitHub, Jira.
- **CAN Tools:** CAN db++, Vector Tool, Peak, CAN analyzer, E2 Lite, Jlink.

EXPERIENCE

Embedded Software Engineer
Quest Global

Jan 2025 – Feb 2025

- Contributed to firmware enhancement for dialysis machine (medical device), focusing on reinfusion functionality.
- Implemented CAN protocol-based real-time communication.
- Conducted extensive hardware-software integration testing.

Embedded Software Engineer
Transight System pvt.Ltd

Dec 2022 – Dec 2024

- Designed COTA (CAN over The Air) system for remote CAN configuration.
- Developed UART communication protocol between EC200 and RA2L1 MCU.
- Managed flash memory for configuration file storage, improving data access speed by 25%
- Designed and implemented I2C drivers for BQ34110 Fuel Gauge to monitor SOC, voltage, And temperature.
- Unsealed BQ34110 via secure MAC command sequence.
- Project coordination & team follow-ups
- Hands-on experience with JIRA, Sprint Planning, and Scrum practices.

Embedded Software Engineer
Srishti Robotics

June 2019-Nov 2022

- Voice Command using IoT system to blink a bulb(ESP32 + Google Assistant + IFTTT + Blynk).
- Programmed AT mega and ESP microcontrollers using Embedded C.
- Developed accelerometer-based gesture-controlled system.
- Bluetooth controlled CAR.

EDUCATION

Bachelor of Technology
Electronics and Communications Engineering
Mahatma Gandhi University

June 2014 – August 2018

PROJECTS

CAN Configurator

- Enabled over-the-air CAN message configuration.
- Integrated UART transmission pipeline between EC200 and RA2L1 MCU.
- Implemented OTA command protocol, reducing manual configuration time.
- Authored clear documentation for configuration procedures and API use.

State of Charge (bq3411)

- Developed secure and stable I2C driver for battery monitoring.
- Implemented polling system to track voltage, SOC, current every 5 seconds.
- Utilized logic analyzer and CAN tools to debug communication issues.

CERTIFICATIONS & STRENGTHS

- Strong knowledge of embedded systems architecture and RTOS fundamentals.
- Familiarity with SDLC, Agile.
- Solid understanding of both firmware and hardware.
- Communication protocols like I2C, SPI, UART, CAN, USB and GPIO programming.
- Microcontrollers/Microprocessors, ARM Architecture and Memory Subsystems.
- Design, develop, and test smart devices incorporating various sensors.
- Proficiency in interfacing sensors with microcontrollers using standard communication protocols such as I2c, SPI, CAN Bus Communication and UART.
- Strong C/C++ programming skills and experience with real-time operating systems (RTOS).
- Expertise in Linux Kernel Programming, Debugging, and System Architecture.
- Strong problem-solving, troubleshooting, and analytical abilities, along with effective communication, teamwork, and mentoring skills.
- Excellent documentation skills for technical design, system behavior, and testing processes.
- Knowledge with UBOOT, Linux Device Driver, Linux Kernel.

NOTE: Available for immediate

