

SARATHY S

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Software Engineer

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CAREER OBJECTIVE

An Aspiring Embedded Software Engineer with around 4.3 years of experience, in the Embedded domain with strong contribution in Automation using ARM controllers and development/testing in the infotainment system of GM VCU project and SIL Testing for Steering system of Various OEM's GM, BMW, Presuma.

TECHNICAL SKILLS

- Experience in **Automotive domain** – QNX, AUTOSAR, Python, C++, Test Automation, ASPICE, Stability testing (HST/LRT), Requirement tools management (DOORS).
- Experience in SIL Testing for Steering System.
- Experience in communication protocols (**I2C, SPI, UART, CAN, UDS**).
- Strong development **Experience in Embedded C**.
- Experience in **32, 16 and 8-bit microcontrollers**.
- Hands on Experience working in **ARM Cortex M0+ and M7 (ATSAMC21, STM32), PIC (16f877A) and AVR (ATtiny24, ATmega328)** microcontrollers.
- Experience **Developing Test Codes and Tests Reports for Unit testing** individual modules.

SOFTWARE & TOOLS

Dev Environments : AUTOSAR, QNX Hypervisor, Atmel Studio 7.0, MATLAB.

Simulation Tools : Proteus, LTspice. Vector CANoe.

Protocol Analyzer : MbPoll

EXPERIENCE

SOFTWARE ENGINEER

BOSCH GLOBAL SOFTWARE TECHNOLOGIES– COIMBATORE (JULY 2022 - Present)

- Worked on devising effective test strategies to test the performance of various Diagnostics modules.
- Worked on developing Robot Framework driven test cases for ensuring Hourly Stability Testing and Local on Review Testing of the integrated mainline software version.
- Actively analyzed various bugs by vigorously testing and reproducing the issues and fixing if necessary.
- Worked for ASPICE Process assessment by creating RQM testcases, linking them with suitable DOORS requirements.
- Performed various smoke tests and other necessary testing required for feature release in Product Validation, Customer Diagnostics and Driver Assistance domain.
- Worked on SIL Testing for steering system.

SOFTWARE ENGINEER
SPARK DRIVES & AUTOMATION – CBE

(JUNE 2020 – JULY 2022)

- Responsible for **Developing embedded applications using C.**
- Developing firmware and algorithms for **microcontroller** based process control modules.
- Configured and implemented various Communication protocols (**UART, SPI, 12C, and CAN**) in Automation Control Unit.
- Develop **Test Codes** for Unit testing individual module to identify, analyse and fix defects.
- **Create and manage all source code repositories**, and upgrading the version control system.
- Involved in purchase activity (**MOUSER, MICROCHIP, TEXAS INSTRUMENT, and WURTH ELECTRONIKS**).

INTERN

SPARK DRIVES & AUTOMATION – CBE

(MARCH 2020 – MAY2020)

Learned **STM32 Microcontroller** and configured the peripherals

PROJECTS

Load cell-based Weighing Controller:

Developed device drivers (12C, SPI, A/D, D/A), and algorithm for controlling the weighing-based filling process by Reading the Load cell value from ADC and controlling the Electromagnetic vibratory Feeder

Electromagnetic vibratory feeder controller:

Developed firmware for controlling the electromagnetic vibratory feeder by reading The analog voltage from the ADC

Check Weighing Machine:

The project was mainly developing device driver for CAN Protocol in ATSAMC21 Microcontroller to transmit the Load cell ADC value to the PLC for weighing based Sorting process.

Test automation control unit:

Developed the automatic testing unit for testing the electromagnetic vibratory feeder controller
By continuously reading the input and output voltages.

EDUCATION

M.E Embedded Systems	: Bannari Amman Institute of Technology, ERODE CGPA - 8.46	2020
B.E Electronics and Communication Engineering	: INFO Institute of Engineering. CGPA - 6.5	2017
Higher Secondary	: CMS Matriculation Higher Secondary School. Percentage - 82.16%	2013
Secondary School	: CMS Matriculation Higher Secondary School. Percentage - 76.4%	2011

DECLARATION:

I hereby declare that the information given above are true to the best of my knowledge and belief.

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