Rajamahendar Kathi

Automotive Systems Engineer |ADAS |SysML
|Functional Safety |Embedded software| MBSD
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Profile

- **10 years of automotive engineering experience** in embedded software development and system engineering
- **Proficient in system specifications** and requirements management using PTC Integrity, Polarian, Codebeamer, and DOORS
- **Skilled in architectural design** with EA Architect and SysML using Cameo Systems Modeler
- **Experience with AUTOSAR and Non-AUTOSAR** embedded application software implementation
- **Strong background in model-based development** with MATLAB, Simulink, and dSPACE TargetLink
- **Integration of embedded function software** onto ECUs and development of test methods (MIL/SIL/PIL/HIL)
- **Utilized calibration tools** such as Vector CANape and ETAS INCA
- **Familiar with configuration and change management tools:** ClearCase, ClearQuest, Stash, JIRA, SVN, Git
- **Experienced in Agile SCRUM and V-Model** methodologies
- **Implementation of embedded software** in compliance with ISO26262 and ASPICE standards
- **Proficient in Embedded C programming** for IoT product development
- **Hands-on experience with serial and wireless communication protocols**: CAN, CANFD, LIN, SPI, I2C, LoRa, BLE, LWM2M
- **Familiarity with ADAS model-based development** and interest in ADAS, electric vehicles, and cybersecurity projects

Skills

Tools: MATLAB/Simulink, dSPACE Targetlink, Eclipse, IAR Embedded workbench, Enterprise Architect, CANApe, CANalyser, PUMA, INCA, vTest Studio.

Industry Standards: ISO 26262, Polyspace, Misra C, MXAM

Testing Simulations: SIL, MIL, PIL, Prototype bench testing

Configuration and Change Management Tools: DOORS, Clear Case, ClearQuest, JIRA, Stash, Git, PTC Integrity, Codebeamer, and Polarian

Languages: C Programming, Embedded c, Model based design, SysML

Professional Experience

#1 Embedded system engineer - November 2022 to till date

Ferchau AUTOMOTIVE, Germany

***Project: Battery management system (BMS)* for Porsche, *Automated driving* for VW**

- **Write and manage system specifications** using tools like Polarion and Codebeamer.

- Led **system testing (SYS5)** by writing functional test specifications and implementing test cases on HIL bench.
- Authored and managed **system requirements and test specifications** for VMC and VSS in VW's automated driving project, ensuring compliance with ISO 26262 and GDPR standards

#2 Technical lead – June 2018 to October 2022

ZF Group - Technical Center in India (TCI), India

***Project: ZF Seat belt system* for Fiat Chrysler, Volvo, Changan, Volkswagen**

- **Algorithm Requirement, architectural design** creation, System, and software requirement Analysis.
- Responsible for **technical support** to team on **function and algorithm software development**, code generation, **confidence/qualification** test, **Model guideline**, **Runtime checks**.
- Responsible for **test management activities** for Algorithm **Functional**, Unit and **bench** test.
- Perform **Issue analysis** and implement **necessary fix** to improve performance
- Responsible for **interaction with counterpart**, Process and quality Reviews, Closing the tasks by change request management and Release activities.

#3 Software developer - June 2014 to June 2018

Robert Bosch Engineering and Business Solutions – RBEI, India

Project: Electrical Power Steering for Ford, GEM, Honda, Porsche and etc

- **AUTOSAR application function and software** implementation using **model-based design** of safety steering functions for **EPSc**.
- Implement **software requirements**, **architectural design**, **unit design** and **auto code**.
- Static code checks, modeling guidelines, Design and validate the software with standards.
- **Functional test**, **unit testing**, testing on **target controllers** using vector tools.
- Involved in **analysis**, development, **bug fix** and responsible for **technical queries** and **reviews**

Project: Transport Data Logger and Active Parking Lot Management (APLM) for BCDS

- Worked on an **agile scrum team** as a **developer** for Bosch **IoT (Internet of Things)** based products **Transport data logger** and **Active Parking Lot Management**.
- Provide technical support in design and development of proto typing and reefing of embedded software modules using **embedded c programming** of embedded systems.
- **Microcontroller programming** and configured **RTOS**, integrated **Sensors** and other modules.
- Responsible for reviews, analyze technical issues, Design, TDD (Test driven development), implementation, basic developing testing on modules
- Implemented **wireless and wired protocols** for communicate with embedded devices

Trainings, Awards & Certifications

- **FSCP LEVEL -**1 FUNCTIONAL SAFETY ENGINEER BASED ON **ISO 26262:2018** - TÜV SÜD
- **SCRUM MASTER** CERTIFIED (SMC) - Scrum Alliance
- ORGANIZATIONAL TRAININGS ON **ASPICE** PROCESS
- **CPRE-FL –** IREB
- **CERTIFIED TESTER-FL -** ISTQB
- **6 SPOT Awards, STAR Performer Award**

Education

- **Master of Engineering/Technology (M. Tech)** in Embedded Systems and VLSI Design at Osmania University, Hyderabad
- **BACHELOR OF TECHNOLOGY** in Electronics and Communication Engineering at Jawaharlal Nehru Technological University (JNTU-Hyderabad)