K SHIVA KUMAR

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Location: Hyderabad, India

Professional Summary

Experienced AUTOSAR Software Engineer with 4 years of proven expertise in automotive software development. Skilled in AUTOSAR, Integration Testing, Unit Testing, and programming in C/C++. Strong understanding of automotive standards and embedded systems. Adept at delivering high-quality, test-driven code in safety-critical environments.

Technical Skills

- **AUTOSAR Modules:** Diagnostics (DEM, DCM), RTE, OS, ASW, BSW
- **Programming Languages:** Embedded C, C++
- **Testing:** Integration Testing, Unit Testing
- **Tools:** DaVinci Developer/Configurator, EB Tresos, CANoe, INCA, Trace32, Parasoft, TPT, Matlab
- **Standards:** ISO 26262, ASPICE, MISRA-C
- **Communication Protocols:** CAN, UDS, OBD
- **Management Tools:** Windchill(Integrity), JIRA, Polarion

Professional Experience

Sr Software Engineer *Nov 2023 – July 2025*
KPIT – Bangalore, India

- Developed and configured AUTOSAR diagnostic modules (DCM, DEM) and other BWS modules for OEM-specific applications.
- Developed and configured Ports, Interfaces other ASW configuration using DaVinci Tool.
- Performed integration testing and validation using Vector CANoe, Trace32 and INCA.
- Worked on the configuration of BSW modules and RTE generation using DaVinci Developer and EB Trsos.
- Created and executed unit test cases using Parasoft and TPT Tool.
- Ensured MISRA-C compliance and documentation for ASPICE audits.
- Updated design document(SDD).
- Worked on Debugging and Fixing Defects.
- Participated in integration of AUTOSAR stacks and resolved configuration and runtime issues.

Autosar Engineer *Sept 2021 – Nov 2023*
LTTS – Mysore, India

- Configured DIDs using CVI tool.
- Worked on Integration testing on diagnostic related fuctionalities
- Conducted static analysis and code reviews to meet quality standards.

Key Projects

LE TwinDrive ECU – Dual-Mode Powertrain Control *KPIT*
Domain: Automotive Embedded Systems
Tools Technologies: Embedded C, AUTOSAR , CANoe, Vector DaVinci Developer, EB Tresos, Trace32, Parasoft
Project Overview: Worked on the development of the LE TwinDrive ECU, an advanced control unit designed to manage dual-drive modes (e.g., electric + ICE) in hybrid vehicles. The ECU enables seamless switching between drive modes, torque blending, and real-time diagnostics, improving both performance and fuel efficiency.

Inverter ECU – Electric Drive Control System *LTTS*
Domain: Automotive Embedded Systems
Project Overview: Developed a production-grade Inverter ECU responsible for managing the control and diagnostics of a high-voltage inverter in electric vehicles (EV/HEV). The inverter ECU interfaces with the motor controller, battery management system (BMS), and vehicle control unit (VCU) to ensure efficient and safe motor torque delivery, current regulation, and real-time monitoring of inverter status.

Education

Master of Technology in Power Systems Engineering
IIT Bhubaneswar – Bhubaneswar, India *2019 – 2021*

Bachelor of Technology in Electrical and Electronics Engineering
JNTUH – Hyderabad, India *2014 – 2018*