BANDI RAJKUMAR

Email: rajkumarbandi918@gmail.com | Mobile: +91 8919144002 Location Preference: Hyderabad, Bangalore, Chennai, Pune.

# PROFESSIONAL SUMMARY

A highly motivated Embedded Software Engineer with 3.7 years of experience in the Automotive domain at LTTS [22 Nov2021 to 10 June 2025]. Proficient in Embedded C, programming C, Device Driver Development, RTOS, and automotive communication protocols like CAN, SPI, and I2C. Strong expertise in embedded systems development, testing, and software integration with a deep understanding of microcontroller architectures (8051, ARM Cortex) and Automotive Functional Safety. Hands-on experience with ASPICE processes, UDS protocol, bootloader configuration, and OS-level embedded development.

# KEY SKILLS

* Programming: Embedded C, Basics of C++, RTOS, Linux, CAPL
* Device Drivers: GPIO, UART, I2C, SPI, CAN – driver configuration & debugging
* Protocols: CAN, SPI, I2C, UART, UDS
* Operating Systems: RTOS (FreeRTOS/Autosar OS basics), Linux basics
* Microcontrollers: 8051, Infineon Traveo T2G ARM Cortex (Cluster MCU)
* Tools & Compilers: CANalyzer, GHS Compiler, Bootloader, Auto Flash Utility
* Version Control: GIT, Alfresco
* Requirement & Issue Management: DOORS, JIRA, Polarion.
* Testing Tools: Cronus, Triton, SWTB1 (Manual test benches)
* Documentation: Microsoft Visio, Polarion for ASPICE traceability

# PROFESSIONAL EXPERIENCE

**Project 5:** **Suzuki YXO-PAK/Y4L Instrument Cluster Panel**

Role: Embedded Software Developer Responsibilities:

Developed Telltale functionality and Warning software for the Instrument Cluster based on system requirements.

Created CAN DBC files for Telltale signals and supported UDS and Factory Check validation testing.

Authored software requirements and design documents and performed integration testing.

Developed functional test cases and validation test plans for the respective modules.

**Project 4**: **HVAC- Climbox (ECU of HVAC System)**

Role: System Engineer Responsibilities:

Defined system-level requirements based on customer specifications.

Analyzed system requirements and derived design-level requirements.

Created quality check sheets, proposal drawings, and performed change management to ensure process alignment.

**Project 3: VOLVO MEP 2** Role: Requirement & Test Analyst Responsibilities:

Analyzed ASPICE activities in Polarion (SYS.4, SYS.5, SWE.5, SWE.6).

Created test plans and cases (SWE.5 Layer Test) based on software and system architecture.

Performed manual testing on software test benches (Cronus, Triton, SWTB1).

Maintained traceability between requirements, test cases, and architecture diagrams.

**Project 2: VOLVO MEP 2**

Role: Requirement Engineer Responsibilities:

Wrote and derived software requirements, ensuring traceability and alignment with client specifications.

Performed detailed requirement analysis and validation to ensure all customer and system requirements were met.

**Project 1: TSGEN-ASPICE GAP** Role: System & Software Engineer Responsibilities:

Worked on the verification criteria for system requirements at ASPICE levels BP1 to BP6 (SWE1).

Updated and reworked Polarion documentation to meet ASPICE rev 3.1 Level 1 and Level 2 processes (System, SW, Functional Safety, Test).

Performed reverse engineering from code and analyzed functional safety requirements.

Reviewed non-functional requirements verification for alignment with linked test cases.

# EDUCATIONAL QUALIFICATION

B.E. in Electronics and Communication Engineering

Jayamukhi Institute of Technology and Sciences (2020) – 8.2CGPA

# CERTIFICATIONS

* Certified Embedded Systems Professional
* Automotive SPICE (ASPICE) Certified Professional
* Functional Safety in Automotive Systems (ISO 26262)

# PROJECT HIGHLIGHTS

* Instrument Cluster – Suzuki YXO-PAK: Developed and validated Telltale logic using Embedded C and CAN drivers.
* HVAC ECU System: Derived system and software requirements, worked on ECU signal processing and integration.
* VOLVO MEP 2: Created robust test plans for embedded modules, ensured end-to-end traceability in Polarion.
* ASPICE GAP Project: Enhanced process quality by refining system-level verification activities and documentation.

# ADDITIONAL INFORMATION

• Languages: English, Telugu, Hindi, Tamil.