B.Venkat Kumar

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# Professional Summary

* 3 years and 06 months of experience in the Automotive domain in integration, validation, and development activities.
* 2.0 Years of experience in Embedded Software Development in the automotive domain
* 2 years of experience in Embedded Software Development in Firmware
* I have strong knowledge of Embedded **C** in compliance with MISRA C standards.
* Hands on experience with AUTOSAR BSW Communication stack, AUTOSARCom.
* Good Working Experience in Automotive Embedded software development in Various ECUs like **DCU** and **VCU**.
* Hands-on Experience with UART, I2C, and CAN protocols.
* I have a working knowledge of CANanalyzer and CANoe.
* Having Knowledge of the version control tool SDOM.
* Knowing Linux System Programming,RTOs, CAPL scripting language
* Knowing AUTOSAR architecture.
* Worked on all activities of SDLC (Requirement Analysis, Designing, Coding, Testing)

# Work experience

**1. Company: Robert Bosch Experience:** October 2021–March 2025

# AcademicProfile

* + B.Tech from KKR and KSR Institute oftechnology and sciences in 2020.
  + SecondarySchooling fromthe Board Of Secondary Education Andhra Pradesh in 2016.

# SkillSet

|  |  |
| --- | --- |
| * Microcontrollers | STM32f407 (32-bit ARM Cortex M3) |
| * Programming languages | C, Embedded C, Data structures, Assembly. |
| * Operating Systems | Windows Platforms |
| * Cross compilers and IDE knowledge | Keil(uVision) |
| * Tools | ARMCC Tool Chain, Simulator and ULINK2 JTAG Debugger, MS Office |
| * Protocols | CAN, and I2C, UART |

**CORE COMPETENCIES.**

* Experience on PowerTrain.
* Knowledge of OBD II.
* Working experience in the testing tools such as (Vector tools).
* Hands-on experience in Manual Testing (Unit testing &SWQT), Configuration Testing, Automation Framework Development, Test Automation, Test specification, Test Case Execution, Logging & Tracking bugs, Regression Testing & Test Closure.
* Excellent knowledge and experience in – Functionality testing and Regression testing.
* Hands-on Working Experience in Requirement Based Testing for High Level and Low Level Requirements.
* Hands-on experience in the Generation and analysis of software analyzer, Memory check, and Resource measurement reports.
* Developed project-specific requirements like Variable coding, implementation of calibrations to enable or disable the LET reset, and implementation of ECU reset types.
* Strong expertise in tools like ClearQuest, Doors, UDE, Vflash, INCA, CANape, ECU- TEST, ECU.worX, Review Tool, PRISM, SDOM, Provisor, and SMART tool**.**
* Knowledge of the complete V cycle.
* Experience in Integrating Basic components.
* Quick learner with the ability to grasp new technologies and software.
* Abilityto work in both independent and team environments.

# Projects

**Project#1 ProjectName**: **Daimler Powertrain Diagnostic Development.**

Tools: ETAS INCA, CANalyzer, UDE,

ECU Worx, ECU Test (Automation test), RQONE

Customer: Daimler Organization: Bosch

Role: Software Developer – Communication stack

# Description:

Responsible for the Communication stack configuration and Vehicle Communication software components of the Daimler Powertrain ECU.

# Responsibilities:

* + Requirement analysis for the software development.
  + Requirement Writing analysis, design, and Development if it is a new requirement.
  + Configuration of CANTP frames based onthe customer requirements.
  + For building hex used the Linux commands .
  + Implementation of TX Messages .
  + Analysis of C code based on MISRA-C guidelines.
  + Validate the development byautomation and manualtesting. Performing URT, SFT,andCode Coverage.

# Project#2 CPC6 – Central Powertrain Controller

**Languages:** Embedded C

**Technologies:** Automotive **Microcontroller:** INFINEON AURIX TC39x **Operating System:** Windows 10

**Development tool:** Doors, ClearQuest, SDOM, ECU Worx

**Automotive Testing Tool:** UDE, CANoe, INCA, ECU-TEST,MATLAB.

**Project Description:** A central powertrain controller (CPC) is crucial in modern vehicles, particularly those with advanced electronic control systems. It serves as the central hub that manages and coordinates various aspects of the powertrain, which includes the engine, transmission, and related components.

It plays a critical role in ensuring that modern vehicles deliver optimal performance, efficiency, and reliability while complying with regulatory requirements. Its ability to manage and coordinate various powertrain subsystems underlines its importance in today's automotive industry.

**Role & Responsibility:** As an SWPD and Firmware Developer, responsible for developing Software Sharing Basic components, getting all other Basic components from the respective package developers, and creating the end product using package integration of those Powertrain BSW/ASW packages. And also responsible for the complete build process by solving runtime errors.

Performing Resource measurement for ECU to identify system load, stack, and core load. Performing the PVER analysis reports like SWA, Provisor, Procman, PVER-Conf Memcheck, and PVER-I checklist. Performing regression testing like Error Code Manager(ECM) and Failure Matrix Test(FMT).Mem Driving Test.

# Declaration:

I herebydeclare that the information furnished above is correct to the best of my knowledge.

**Place:**Guntur Venkat kumar **Date:**