KIRAN YELLAMANCHALI

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**SUMMARY**

* Automotive Engineer around 6 years of experience with **AUTOSAR Developer**, **Automotive Infotainment Testing** & **Project Management**.
* Experience with **In-vehicle testing**, **Manual testing**, **automation testing** using vector device **VN 1630, VH6501**.
* Worked with cross-functional teams to communicate on **Lab scheduling, Test plan,** **Test Objective, Pre-condition checklist**, and **Expected Result** using **JIRA**.
* Involved with **software development team** in flashing new software updates to **Vehicle** and **Test Bench** with **Fast boot, USB update, Update configuration file** and configure various settings on the vehicle.
* Good Knowledge of communication protocols, such as **CAN/CAN FD, LIN**.
* Proficient with **Vehicles-Spy** and **C# snippets** to conduct manual and automation test respectively.
* Working Experience with **De-bug Boards** to collect appropriate logs and **De-bug** the issue.
* Hands on experience in **diagnosing**, **troubleshooting** and **leading corrective action**.
* Working knowledge on software testing life cycle methodologies, including **Test cases**, **Test plan**, **Defect tracking**, **Test report** and **Documentation**.
* Experience in both Vehicle and Bench with pre-production and production build modules.
* Good understanding of **IBM RATIONAL DOORS** & Bug reporting tools **JIRA**.
* Knowledge of **Agile methodology** and following **SCRUM**.
* Working knowledge on tools such as, **CANalyzer, Vehicle Spy** and **Mx Suit** to integrate the CAN messages.
* Managed and organized **DVP&R** testing plans as per the validation team request.
* Designated to work in a group as well as independently with good supervision, focus on the project and took initiative during the critical phase and supported the team to complete projects successfully on time.
* Strong **communicational** and **interpersonal** skills with **analytical** **problem-solving** and **multi-tasking** **qualities**.
* Proficient in working on **MS office products** (Excel, Word, PowerPoint, Project) and access share point sites.
* **High energetic**, **self-starter**, **quick learner,** and desire to take responsibility, deliver results with minimal guidance.

**Technical Skills**

* Automotive Tools: CANalyzer, Vehicle Spy, Mx-Suite, NeoVI Fire, NeoVI Fire 2
* Programming: C, MATLAB & Simulink, LabVIEW, CNC Programming, IDE Programming, CAPL.
* Engineering Skills: DFMEA, DOE, DVP&R, CAE, DV/PV
* Design Software: AutoCAD, SolidWorks, GD&T, Simplify 3D, Cura, Hypermesh
* Electronic Tools: Multimeter, Oscilloscopes, DAQ board and debug tools.
* Project management tool: RTC, code version control tools (GIT)
* Bug Reporting Tools: Jira

**Professional Experience**

**CORtracker** – **Farmington Hills, Michigan** ***Jan 2019 - Present***

**Embedded/AUTOSAR Software Engineer**

* Implemented software functions and perform bench and unit test and ensure all the components are tested as per the required specifications.
* Delivered software build with release notes and organized daily meetings with cross functional teams to provide update as per the release plan.
* Configuration of Software components AUTOSAR BSW modules in **Vector Davinci tools** and Diagnostic Data in Candela studio.
* Worked with Diagnostic team at regular intervals to make Diagnostic decisions better.
* Understanding of legacy software architecture to migrate to AUTOSAR UDS software.
* Worked in designing the complex device driver component/application software component to implement diagnostic server.
* Developed an Implementation of CDD (complex device driver) / application software components using **Embedded C coding**.
* Configuration AUTOSAR Basic Software for **Diagnostic Stack**.
* Develop **DiagnosticDataidMngt, DiagcMngt** diagnostics application components by using Davinci Developer.
* Configure Diagnostics Communication Manager & Diagnostics Event Manager for Controller on DaVinci configurator.
* Preparation of test plans for Diagnostic Communication Manager **(DCM)** & Diagnostic Event Manager **(DEM)** components of AUTOSAR Base software.
* Unit testing of AUTOSAR **CDD**/application software components.
* Functional testing of AUTOSAR Diagnostic services by giving Diagnostic commands from CANalyzer/CANoe.
* Preparation of AUTOSAR Base Software User Guide for Diagnostics Stack.
* Worked on maintenance of the AUTOSAR Base Software for Diagnostic Stack.
* Analyze ASW & BSW integration issues and provide solutions to resolve the issues.

**MGA Research Corporation** – **Troy, Michigan** ***May 2017 –Nov 2018***

**Embedded Engineer (Software)**

* Worked with core engineering teams to correlate test requirements to the specifications, improve test method accuracy, efficiency, and support in reviewing test results to develop new software changes for upcoming projects.
* Maximized customer satisfaction by 100% through continuous engagement, lab availability, robust test setups, supporting witness testing, and timely report submission.
* Currently working on Global A & Global B platforms, **GMLAN(CAN)** & **CAN-FD** architectures, respectively.
* Implementation of **Software-in-loop (SIL)** testing for automation test benches using **Mx-Suite** tool.
* Experience working on “**Mx-Suite** interface with the vector device **VN1630**” for automation script development.
* Solved problems using **PCA** (**Permanent corrective action**) via problem solving tools like **8D**’s, **5whys**.
* Working knowledge on automation tools such as, **CANalyzer** and internal automation testing tool **Mx Suit.**
* Developed and modified test procedures and test cases for **CAN & CAN FD** architectures.
* Initially, worked on **Rear View Camera (RVC)** engineer and later-on took over the responsibilities of **Rear-View Camera (RVC)** domain for both **Global A** & **Global B** platforms.
* Created comprehensive **test setups**, **test plans** and ensure all the components are tested as per customer as per the customer provided required specifications.
* Arranged daily meetings with cross functional teams to provide update of overall summary of the project.
* Experience in building the test benches and configuring the **Radio module**, **ECU’s**, and **Vector Box** and integrate using **Vehicle Spy** or **Mx Suit**.
* Hands on experience in building test bench architecture using electrical schematic diagrams.
* Identified software bugs during software execution and reporting to software development team by using bug life cycle tools like **JIRA**.
* Created comprehensive testcases to validate infotainment features based on the systems requirements on **DOORs.**
* Worked and troubleshooted test benches using **C# and Python** programing snippets of logics to change the load frequencies and used Vehicle spy to debug the error messages.
* Created unique test scripts to test various ECU’s such as Instrument Panel Cluster **(IPC),** Centre Stack Module **(CSM)**, Body Control Module **(BCM),** Telematic Control Protocol **(TCP),** Gateway Module **(CGM)**
* Experience in building the test benches and configuring the radio module, **ECU’s**, and vector box to prepare for automationtesting for stability of the software delivered.

**BMW**– **Kun Motors, India *July 2014 – May 2015***

**Test Engineer**

* Worked on BMW certified **OBD** tool to check MIL (malfunction indicator light) and build test setup to run diagnostic routines.
* Learned to work with **ECU diagnostics**, **troubleshooting**, and general **maintenance.**
* Collected data logs using a **data acquisition system** to analyze the results.
* Documented the **test issues**, managed vehicle **OBD data logs** and reported to the service quality manager.
* Worked along with technician on vehicle alignment and wheel balance using BMW analysis software.
* Root-caused and analyzed issues in the vehicle software during the service test phase.
* **Decoded Diagnostic Trouble Codes (DTCs)** related to On Board Diagnostic Service **(OBD)**.
* Assisted and worked on inventory management of parts and components for the spares.
* Responsible and took initiative in monitoring all incoming and outgoing inventory and purchase orders.
* Used Microsoft Suite, platform for managing the requirements with Germany team.
* Responsible and took initiative in monitoring all incoming and outgoing inventory and purchase orders.

**Sapient Technologies – India *Jun 2013 – May 2014***

**Test Engineer**

* Worked on Automotive System Design. (Instrumental Panel Cluster, Rear Entertainment System, Radio Systems & Navigation).
* Analyze Business requirements and specifications to create and execute test procedures.
* Verify the appropriate regression test cases to be run for software/ hardware releases.
* Execute in vehicle and bench testing including manual and automated testing.
* Ensure all test results are reported promptly and accurately.
* Reporting defects to supervisor and ensure verification of all defects.
* Used CANalyzer & CANoe tools for vehicle networking testing.
* Learned technical and professional skills in validation of products.
* worked in diagnostics, data and equipment testing.
* Communicates, coordinates, and consults with the team to design release and development team.

**Education**

**Master of Science in Automotive Engineering** ***December 2017***

Lawrence Technological University, Michigan, USA

**Bachelor of Technology in Mechanical Engineering** ***May 2013***

Jawaharlal Nehru Technological University, Hyderabad, India