# L MAHESH BABU

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**Objective:**

To be a successful professional in the field of embedded systems and to work in the most challenging position with an organization that provides ample opportunities to learn and to contribute.

# Professional Summary:

* **ISTQB® and Safe Agile Certified Project Lead** withOver **6 Years** of profound validation experience in **ADAS features** using **SIL and HIL testing** in the field of **Embedded Systems** significantly in **Automotive Domain**.
* Good Exposure of **Camera and Radar** based driver assistance systems.
* Lead and manage the **ADAS test and validation team**, overseeing all activities related to requirement analysis, test case design, and test execution.
* Experience in the Analysing system and product requirements and translate them into detailed test cases using test case design techniques.
* Expertise in various types of testing’s like **System Testing, Acceptance Testing, Integration Testing, Regression Testing, Defect Testing, Smoke Testing and Sanity Testing**.
* ADAS Features like **ACC, CC, SL, ASL, SOD, TSR, AEB, LSS, ALC, SSRLA and TSA** tests are done with software in **System Testing**.
* Good Experience in preparing **Test strategy, Test plans, Test Scenarios, Test Cases and Test Implementations**.
* Review of **Test Plans, Test Cases, Test Implementations, Test Procedures and Test Reports** based on Technical Review checklist for optimum productivity.
* Experience in implement and manage a robust defect tracking system to ensure timely resolution of identified issues. Collaborated with the software development team to reproduce and resolve defects using **JIRA** for bug tracking.
* Experience in creation of technical documentation, test reports, and presentations for customers.
* Implemented **Python Automation** Scripts which in turn reduced to lot of efforts in daily activities.
* Experience in maintaining product, system requirements and traceability using tools like **Code Beamer**, **DOORS, DNG**.
* Familiar with **Software Development Life Cycle (SDLC), Software Testing Life Cycle (STLC) and Defect Life Cycle**.
* Proficient in analysing, reporting and tracking defects using defect management tools like **JIRA**.
* Experience in creating **GIT Branches, Tags and Merging** the source code between different branches.
* Good understanding in **Agile/Scrum, V&V** and **Waterfall** methodologies.
* Coordinating with the client about work status, Test Reports, and defects closure if any.
* Lead and mentor the team, fostering a culture of continuous improvement and technical excellence. Able to work on own initiative and as part of team with excellent organizational skills.

# Professional Certifications:

# ISTQB® Certified Tester Foundation Level.

# Safe 5 Agile Certification.

**Technical Skills:**

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| **Programming Languages** | Embedded C and Python. |
| **Software Tools** | CANoe, CANape, MATLAB, DV tool, Evald (Bosch Pro), Virus VTD (Simulator-Used for Create the real time Scenarios), Postman and Roadrunner. |
| **Operating Systems** | Linux, VxWorks and Windows. |
| **Version Control Tools** | GIT, GitHub, GitLab and Bitbucket. |
| **Continuous Integration Tools** | Jenkins and CB-SIL. |
| **Bug/Defect Tracking Tools** | JIRA and Code Beamer. |
| **Virtualization Tools** | Docker. |
| **Communication Protocols** | CAN. |
| **Requirement Management Tools** | DOORS, DNG, and Code Beamer. |
| **Test Management Tools** | RQM, STARC and Code Beamer. |
| **Collaboration Tools** | Confluence. |
| **Framework** | CLOE and ASTAS (SIL Testing Frameworks). |

**Achievements:**

* Honoured with the best performer award from “**Persistent Systems**”.
* Honoured with a token of appreciation for my hard work and dedication from "**Bosch**".

Project Experience – information:

**Project #1:**

Working in **APTIV TCI, Bangalore, India** as **Project Lead** under the payroll of **Persistent Systems** from **Oct 2023** to **till date**.

**Project : COSA**

**Duration :** **Oct-2023** **to till date**

**Location : Bangalore**

**Role : Project Lead**

**Description:**

A Software-Defined Vehicle is any vehicle that manages its operations, adds functionality, and enables new features primarily or entirely through software. Software Defined Vehicles rely on software and data collected from different sensors to control major functions, such as propulsion, safety systems, and entertainment features. Unlike traditional vehicles, which heavily rely on hardware, SDVs leverage advanced software algorithms and connectivity to enhance performance, functionality, and user experience.

**Roles & Responsibilities:**

* Understanding the customer requirements.
* Requirements Analysis and interact with Product Owner for clarifications by raising issues for incoherent/incomplete requirements.
* Test Cases creation for ADAS applications running on **CVC131** and **OSP** using **Black Box Test Case Design Techniques**.
* Test Executions on HIL and Test Result Validation using DV tool for the Test Cases.
* Collaborated with the software development team to reproduce and resolve any issues that arise in the testing process using **JIRA** for bug tracking.
* Experience in generation of Test Reports with all the test results of the tests executed on the HIL Test Platform for a specific PI and Sprint.
* Implemented **Python Automation** Scripts which in turn reduced to lot of efforts in daily activities.
* Review ofTest Procedures and Test Reports based on **Technical Review checklist** for optimum productivity.
* Lead and guide the team technically.
* Interact with cross functional teams globally within APTIV.
* Coordinating with the client Manager/product owner about work assignment, Work status, Test Reports, and defects closure if any.

**Project #2:**

Worked in **Mercedes-Benz Research and Development India Private Limited, Bangalore, India** as **Senior** **Engineer** from **July 2023** to **Sep 2023**.

**Project : TMRR Minerva**

**Duration :** **July-2023** **to Sep 2023**

**Location : Bangalore**

**Role : Senior Engineer**

**Description:**

Advanced driver-assistance systems (ADAS) are electronic systems that help the vehicle driver while driving or during parking. One of the challenges of ADAS testing must precisely measure relative position and velocity from car to car when testing longitudinal control systems and to track the car in the testing of lateral control systems. Perfect synchronization of all signal sources from two or more cars or moving object. It involves validation of System Requirements of ADAS features like TSA and SSRLA with different Test Platforms like SIL, HIL and Vehicle.

**Roles & Responsibilities:**

* Understanding the system requirements.
* System Requirements Analysis and interact with CFO for clarifications by raising issues for incoherent/incomplete requirements in **DNG**.
* Test Cases creation for System requirements using **Black Box Test Case Design Techniques**.
* Test Pattern Implementations, Test Executions and Test Result Validation for the Test Cases.
* Maintaining system requirements and traceability using **STARC** and **DNG**.
* Validate Software for several features like **TSA and SSRLA**.
* Experience in creating **GIT** Branches, Tags and Merging the source code between different branches.
* Implemented **Python Automation** Scripts which in turn reduced to lot of efforts in daily activities.
* Work with the development and simulation team to resolve any issues that arise in the testing process.
* Review ofTest Implementations, Test Procedures and Test Reports based on **Technical Review checklist** for optimum productivity.
* Knowledge transfer to the new team members and giving technical presentations to team.
* Interact with cross functional teams globally within MB Group.

**Project #3:**

Worked in **Stellantis, Hyderabad, India** as **Engineer** from **Dec 2021** to **July 2023**.

**Project : Auto Drive 1.0**

**Duration :** **Dec-2021** **to till date**

**Location : Hyderabad**

**Role : System Tester**

**Description:**

Advanced driver-assistance systems (ADAS) are electronic systems that help the vehicle driver while driving or during parking. The project involves in both verification and validation of MPAD (Mid Platform Autonomous Driving) ECU. It involves validation of System Requirements of ADAS features like ACC, TSI and LCA on SIL platform with ASTAS framework.

**Roles & Responsibilities:**

* Understanding the system requirements.
* Analysis of System Requirements and interact with product owner for clarifications by raising issues for incoherent/incomplete requirements in **Code Beamer**.
* Test Cases creation for System requirements using **Black Box Test Case Design Techniques**.
* Test Pattern Implementations, Test Executions and Test Result Validation for the Test Cases.
* Test Plan creation and Execution for SIL Test Platform for a specific sprint and PI.
* Maintaining system requirements and traceability using Code Beamer.
* Generation of Test Reports with all the test results of the tests executed on the SIL Test Platform for a specific PI and Sprint.
* Validate ECU Software for several features like **ACC and TSI** using tools like **ASTAS** and **Roadrunner**.
* Validate the software and write test cases for **ADAS** with **ASTAS** and **Roadrunner** tools using inputs provided by supplier as Q&As, Specifications, Requirements etc., Finding the bugs and logging them in Code Beamer.
* Implemented **Python Automation** Scripts which in turn reduced to lot of efforts in daily activities.
* Experience in creating **GIT** Branches, Tags and Merging the source code between different branches.
* Work with the development team and simulation to resolve any issues that arise in the testing process.
* Review ofTest Implementations, Test Procedures and Test Reports based on **Technical Review checklist** for optimum productivity.
* Carry out **Regression testing** every time when any new feature added, or existing feature deletion or changes are made to code to fix the defects.
* Finding the Bugs, Defects and log them in **Code Beamer**.
* Interact with cross functional teams globally within Stellantis.

**Project 4#:**

Worked in **Robert Bosch Engineering and Business Solutions Limited**, Bangalore, India as **System Tester** under the payroll of **UST Global** from **Sep 2018** to **Dec 2021.**

**Client :** **JLR**

**Project : PJ-PH**

**Duration :** **Sep 2018** to **Dec 2021**

**Location : Bangalore**

**Role : System Tester**

**Description:**

Every modern vehicle has equipped with **Advanced Driver Assistance Systems** (ADAS). One of the challenges of ADAS testing has to precisely measure relative position and velocity from car to car when testing longitudinal control systems and to track the car in the testing of lateral control systems. Perfect synchronization of all signal sources from two or more cars or moving object. All ADAS features tests can be done with the same software.

**Roles & Responsibilities:**

* Understanding the System requirements.
* Requirement Analysis and raising clarifications for unclear and missing requirements.
* Implementing, Executing and Validating the Test cases.
* Validate ECU Software for several features like **ACC, CC, SL, ASL, TSR, SOD, AEB, LSS** and **DCR** using tools like **CLOE** & **Virus VTD**.
* Validate the software and write test cases for **ADAS** with **Cloe**, **Vires VTD** tools using inputs provided by supplier as Q&As, Specifications, Requirements etc., Finding the bugs and logging them in JIRA.
* Review ofTest Implementations, Test Procedures and Test Reports based on Technical Review checklist for optimum productivity.
* Experience in creating **GIT** Branches, Tags and Merging the source code between different branches.
* Creating the Test Plans and Test Procedures for the requirements based on **TR Checklist**.
* Finding the Bugs and Tracking Defects and logs in JIRA.
* Work with the development team to resolve any issues that arise in the testing process.
* Carry out Regression testing every time when any new feature added, or existing feature deletion or changes are made to code to fix the defects.
* Creating Scenarios by using **VTD** and it creates extended with .XML file.
* Initially used to Validate a Plot configurations and Verifying Measurement files by Canape tool.
* Implemented **Python Automation** Scripts which in turn reduced to lot of efforts in daily activities.
* Technical discussion with Onsite Co-coordinator and Client to better understand the System Requirements.
* Lead and guide the team technically. Knowledge Transfer to the new team members.
* Coordinating with the client Manager about work assignment, Work status, Test Reports, and defects closure if any.

# Qualification:

# Post-Graduation from J.N.T. University, Kakinada.

**Declaration:**

I vouch the authenticity of the above-mentioned information.

**L Mahesh Babu**