VENKATA PAVAN KUMAR KARODI

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SUMMARY

- 3 years of experience working as a Systems Test Engineer in Automotive Industry.
- Graduate Electrical Engineer with strong educational background in Vehicle Electronics and Intelligent Vehicle Systems.
- Experience in Testing Infotainment Features such as Bluetooth, Voice recognition, Media, Audio, CarPlay & Android Auto.
- Perform bench testing for Tuner (AM/FM), Sirius XM, BT, and Media.
- Knowledge in development of prototype test systems such as Hardware in loop.
- Knowledge on CAN communication between ECU modules and components.
- Good exposure to IBM Rational DOORS for maintaining and updating test cases with requirements.
- Review and Analyze requirements, developing test cases and testing software in a real time environment.
- Analyze and manage all functional safety aspects in software development projects
- Verification of bug fixes using defect tracking tool JIRA.
- Ability to work as part of a collaborative team. Strong coordination, organization, and communication abilities.
- Quick learner with excellent interpersonal communication skills and problem-solving analytical skills.

EDUCATION

University of Michigan-Dearborn, USA. **Jan 2020 - Present**
Master of Science in Engineering - Electrical and Computer Engineering GPA-3.95/4

SRM University, Chennai, India. **June 2013 - May 2017**
Bachelor of Technology - Electrical and Electronics CGPA- 7.97/10

WORK EXPERIENCE

Systems Test Engineer | Tata Consultancy Services Limited, Mumbai, India. **June 2017 - Dec 2019**

- Experience in automotive infotainment domain, working with OEM's and TIER 1 suppliers.
- Consulted with clients, analyzed requirements, designed system information flows, and implement processes.
- Collaborated closely with cross-functional teams to map user requirements for software and device solutions to achieve strategic goals.
- Developed and documented test plans and procedures to verify and meet customer requirements.
- Involved in test plan creation, test procedures and updated different test cases.
- Automotive Infotainment domain experience in connectivity features like Radio:AM/FM/SXM, Navigation, Bluetooth, AA and Apple Car Play.
- Ensured the test reports to be detailed, comprehensive and accurate for easy analysis on the bug issue for developers.
- Experience in collecting CAN logs using OBD, NeoVI hardware.
- Interact with client to review requirements and test results.
- Timely update of software in Head Units in Bench using USB sticks and SD cards when needed.
- Demonstrated problem identification and resolution skills in failure mode and effect analysis and root cause analysis.
- Provided project support and light project management. Participated in project meetings, design sessions, and implementation.
- Facilitated the code-review process and provided knowledge transfer sessions.
- Troubleshoot tickets to resolve basic technical problems faced by the user.
- Maintained awareness of current technical developments through research, self-study, and/or formal conference or training programs.

INDUSTRIAL TRAINING

Trainee | Crompton Greaves Pvt Ltd, Ahmednagar, India. **June 2015**

- Acquired Training in Motor Division regarding the manufacturing and assembling of 1 and 3 Phase Motors and Alternators.

Trainee | Yash International, Hyderabad, India. **June 2016**

- Acquired Training in Electrical Design department about the design of Fans.

ACADEMIC PROJECTS

Vehicle to Vehicle Communication **May 2020 – August 2020**

- Implementation of Real Time Wireless System for Vehicle Safety and Vehicle to Vehicle Communication.
- Design algorithms and simulate driver-highway interactions.
- Knowledge of how to model intelligent vehicle systems and intelligent highway systems

CAN application on Vehicles. **Jan 2020 - April 2020**

- Studied and researched on improvement of energy conversion efficiency for the new PHEV and full-electric cars.
- Adoption of CAN-FD to new vehicle control system design.
- Comparison of traditional CAN and CAN-FD which presents its strong performance in transferring data, the better capability to support a higher number of ECUs on the network.
- Overview on operating principle of SAE J1939 standard for 29-bit identifier.
- Knowledge on Vehicle Architecture, Wireless Fieldbus, Ethernet CAN-bus in the performance of energy conversion and capability of mechatronic control for PHEV, full-electric and high-level autonomous driving vehicles.

Automatic Plant Watering System. **Feb 2016 - July 2016**

- Developed a system which supplies water to the plant, depending on the level of moisture present in the soil.
- Combining the idea of a moisture sensor and an Arduino board, the output of the moisture sensor is fed back to the Arduino board and once the moisture is less it starts the motor for watering.
- Control the timing of water flow as the level of water differs for different plants.

A Three-Phase Hybrid Cascaded Modular Multilevel Inverter for Renewable Energy Environment **Dec 2016 - June 2017**

- A three-phase hybrid cascaded modular multilevel inverter topology which is derived from a proposed modified H-bridge (MHB) module.
- This topology results in the reduction of a number of power switches, losses, installation area, voltage stress, and converter cost.
- Renewable energy environments such as Photovoltaic (PV) connected to the micro-grid system, it enables the transformer-less operation and enhances the power quality.
- High-quality output voltage, reduction of voltage stress on power switching devices, lower switching losses and higher efficiency

TECHNICAL SKILLS

Programming Languages: UNIX, SQL, COBOL, C++ (Intermediate proficiency), Basics of Linux Shell Scripting, Basics of Python
Operating System : Windows , MS Office
Communication Protocols : CAN and LIN
Bug Reporting Tools: JIRA
Other Technologies: MATLAB, Simulink.

COURSEWORK

- ➢ Power Electronics
- ➢ Digital Signal Processing
- ➢ Auto sensors and actuators
- ➢ Electrical Machines
- ➢ Digital Systems
- ➢ Intelligent systems
- ➢ Control Systems
- ➢ Modern control theory
- ➢ Intelligent Vehicles systems