**SRI HARSHA KOLUKULURI**

**Jr. Validation Engineer**

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# SUMMARY

# Embedded Systems Test Engineer with 3-year expertise in product verification and validation for electromechanical systems. Skilled in test plan creation, troubleshooting with tools like oscilloscopes and JTAG, and documenting results for quality assurance. Strong knowledge of CAN, Ethernet, and embedded systems. Collaborative, detail-oriented, and dedicated to ensuring product reliability through efficient testing processes. Collaborative and detail-oriented, with a focus on maintaining accurate schedules and meeting product specifications through rigorous testing.

# SKILLS

* Methodologies: SDLC, Agile (Scrum, Kanban), Lean Startup, Waterfall
* Testing Tools: Oscilloscopes, Multi-meters, JTAG, Logic Analyzers, CANalyzer
* Programming Languages: Python, C/C++, SQL
* Communication Protocols: CAN, Ethernet, RS-232/485, J1939, ISO11783, TCP/IP
* Embedded & Electromechanical Systems: Microcontroller peripherals (PWM outputs, A/D converters, boot loaders)
* PCB Design Tools: Altium, AutoCAD Electrical
* Requirements Management: DOORS

**EDUCATION**

**Master of Science in Business Analytics** May 2024

University of New Haven

**Bachelors of Technology in Computer Science and Engineering** June 2020

GITAM University, India

**PROFESSIONAL EXPERIENCE**

**Cognizant, Bangalore | Embedded Validation Engineer** September 2020 – August 2022

* Gather and format test requirements from internal and external customers, collaborating to ensure clarity and completeness.
* Conduct Product Verification and Validation (PV&V) testing, troubleshooting issues, and refining processes to meet product specifications.
* Assisted in gathering and defining test requirements for automotive electrical systems and circuits.
* Developed and executed **C++-based test plans** for embedded systems and electromechanical components, ensuring compliance with functional and safety standards.
* Conducted basic circuit testing using tools like oscilloscopes and logic analyzers to verify signal integrity and performance.
* Helped troubleshoot and identify issues in hardware and firmware, contributing to the optimization of designs.
* Maintained accurate documentation of test results and progress, supporting communication with project teams.
* Collaborated with cross-functional teams to assist in integrating testing processes into the product development lifecycle.
* Develop and execute comprehensive test plans and test cases for electromechanical systems, ensuring product quality and compliance.

**Electronics Corporation of India Limited | Embedded Engineer Intern**  June 2020 - September 2020

* Assisted in developing and executing test cases for embedded systems, focusing on ensuring product compliance and reliability.
* Utilized testing tools like oscilloscopes and multi-meters to perform diagnostic checks and gather precise data during test runs.
* Documented and reported test results, highlighting issues and collaborating with the engineering team to resolve them promptly.

**Aspired Solutions Inc | Testing Intern** January 2023 - April 2023

* Assisted in developing and executing detailed test plans for various software and hardware products, ensuring comprehensive validation.
* Utilized tools such as logic analyzers and oscilloscopes to conduct precise measurements and troubleshooting.
* Documented test procedures and results for quality assurance purposes and continuous improvement initiatives.

**PROJECTS**

**Electromechanical System Testing Optimization**

- Designed and implemented a testing framework that improved validation efficiency by 15%, streamlining test case execution and reducing redundant procedures.

- Utilized debugging tools like oscilloscopes and multi-meters to diagnose issues and ensure accuracy in test results.

**Gesture Controlled Robot**

- Developed a gesture-controlled robot using accelerometer and gyroscope sensors, showcasing skills in sensor interfacing and signal processing.

- Created algorithms to interpret hand gestures and translate them into robotic commands, highlighting proficiency in embedded systems.