

# Sai Sri Harsha Kumbam

## Software Engineer

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## SUMMARY

Detail-oriented Software Development and Test Engineer with 3+ years of experience in quality assurance, automation testing, and system diagnostics. Currently working at Quanta, focusing on validating complex hardware systems including servers, switches, and storage devices. Skilled in Python scripting, Linux environments, PXE setup, and CI/CD workflows. Adept at identifying defects, performing root cause analysis, and streamlining testing processes. Passionate about delivering high-quality products through innovation and cross-functional collaboration.

## PROFESSIONAL EXPERIENCE

### Test Engineer | Quanta Computer Inc. 廣達電腦, TN, USA

05/2025- Present

- Develop and maintain automated test scripts using **Python** and **Linux shell scripting** to validate enterprise hardware systems including servers, switches, and storage devices.
- Configure **PXE boot environments** to support scalable OS deployment and streamline system diagnostics in production workflows.
- Conduct **functional, regression, and performance testing** to ensure compliance and high availability across network hardware and system software.
- Perform **root cause analysis** on hardware and software integration issues, collaborating with R&D, software, and production teams to resolve critical defects.
- Integrate testing into **CI/CD pipelines** using tools such as Jenkins to support continuous hardware validation and deployment.
- Support **new product launches** by validating test coverage, verifying hardware compatibility, and maintaining system documentation.

### Software Engineer | GVA Infotech , VA, USA

01/2024 – 05/2025

- **Developed** and executed comprehensive test plans and automated test cases for functional, regression, performance, and integration testing across cloud-based and enterprise-level applications.
- **Utilized** tools such as Selenium, JUnit/TestNG, and Cucumber to automate UI and API tests, resulting in improved test coverage and reduced manual effort by 60%.
- **Designed** and implemented automated testing frameworks using Java, Python, and Groovy, increasing test coverage by 40% and enabling continuous quality assurance within CI/CD pipelines using Jenkins and GitHub Actions.
- **Conducted** 300+ API and microservices tests using RESTful interfaces, Postman, and custom test suites, including validation of gRPC calls and containerized services on Docker and Kubernetes, resulting in a 25% reduction in production defects.
- **Partnered** with 5+ cross-functional teams (development, product management, DevOps) to troubleshoot defects and perform root cause analysis, contributing to a 30% improvement in issue resolution time across the SDLC.
- **Executed** 50+ performance and load testing scenarios using JMeter and LoadRunner; identified and resolved key bottlenecks, improving application stability by 35% for cloud-native solutions deployed on AWS and Azure.
- **Ensured** end-to-end quality assurance for distributed systems in Agile/Scrum environments, enhancing scalability and maintainability of software platforms and boosting user satisfaction scores by 20% in automotive and healthcare domains.

### QA Analyst | Cognizant, Hyderabad, India

08/2021 – 01/2023

- **Developed** end-to-end automation for regression testing using Selenium, TestNG, and Maven, reducing manual workload and expediting web application deployments.
- **Programmed** 200+ API test scenarios in Postman to validate RESTful services, cutting integration defects by 30% during Agile sprints.
- **Authored** test cases in TestLink, improving test coverage by 25% for a fintech mobile app, ensuring end-to-end validation of payment workflows.
- **Managed** defect lifecycle in Jira using Agile methodologies, resolving 95% of critical bugs within 24 hours through detailed logs and screenshots.
- **Built** a data-driven framework with Apache POI and TestNG, automating 100+ innovative test scenarios by reading/writing Excel test data.

### Software Testing Intern | Cognizant, Hyderabad, India

03/2021 – 08/2021

- **Assisted** in the creation of optimized scripts using Selenium for 2+ projects, cutting down manual testing time by 30%.
- **Collaborated** with development teams to identify and resolve 50+ issues early in the development cycle, preventing costly post-launch defects.
- **Generated** detailed reports using Excel and Jira, ensuring timely updates and transparency for stakeholders, improving communication and project tracking.

## PROJECTS

### Tax Automation and Optimization Suite

- **Planned** and implemented an automation testing suite for a global financial services client's indirect and corporate tax systems, leveraging Python, Java, C, and JavaScript to enhance testing efficiency across critical workflows.
- **Reduced** bug instances by 5-10% through manual "All Line Testing" and simplified regression testing with Selenium, TestNG, and Cucumber, delivering high-quality, compliance-ready software.

## SKILLS

- **Test Automation:** Python, Selenium WebDriver, TestNG, PyTest, Maven, Apache POI, Cypress, Cucumber (BDD Testing)
- **API Testing:** Postman, REST Assured, RESTful/GraphQL API validation
- **CI/CD:** Jenkins, GitHub Actions, Docker integration
- **Manual Testing:** Test case/scenario design, STLC, cross-browser (Chrome/Firefox/Safari), mobile testing (iOS/Android)
- **Frameworks:** Data-Driven (TestNG + Excel), Hybrid, Page Object Model (POM)
- **Test Management & Defect Tracking:** TestLink, TestRail, Zephyr, Jira, Mantis BT
- **Databases:** SQL, MySQL (querying for data validation)
- **Logging & Reporting:** Extent Reports, Allure, Log4j
- **Performance Testing:** JMeter (basic load testing), LoadRunner

- **Methodologies & Practices:** Agile/Scrum, Sprint Planning, Retrospectives, Risk-Based Testing, Regression Testing, UAT Coordination
  - **Version Control:** Git, GitHub/GitLab
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## CERTIFICATIONS

- Oracle Certified Associate, Java SE 8 Programmer
- **Cognizant Academy** - Test Case Creation – Simulation, Effective Test Case Creation, Test Data Preparation
- Certified Jr. Test Analyst/Quality Engineer – Selenium
- Test Analyst/Quality Engineer – JavaScript

## EDUCATIONS

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### Masters in Information Systems

University of Maryland Baltimore County (UMBC), Baltimore, United States | GPA: 3.70/4.00

**01/2023 – 12/2024**

### Bachelor of Technology in Electrical and Electronics Engineering

Geethanjali College of Engineering and Technology, Hyderabad, India | GPA: 3.67/4.00

**08/2017 – 06/2021**