

Sri Madhan S P

Sr. SDET - 4.8 years of experience

OVERVIEW

A passionate engineer with 4.8 years of experience specializing in comprehensive software testing across **Gaming, SCM, Banking, and Insurance** domains. Expert in building end-to-end automation solutions for **Web, API, Mobile, and Desktop (Windows)** applications. Experienced in engineering an **LLM-powered Agentic AI framework** for complex game testing and **setting up entire automation architectures** within **monorepo environments for multi-tenant platforms**. Proficient in optimizing testing turnaround time through robust CI/CD integration and Agile methodologies, I excel at delivering scalable, production-ready testing frameworks that handle diverse technical challenges and cross-functional requirements.

SKILLS	TOOLS AND TECHNOLOGY EXPOSURE
<p>Test Platforms - Web, Mobile, Desktop (Windows) & API</p> <p>Strengths - Functional Automation Testing, Performance Testing, QA processes and Agile methodologies</p> <p>Domain: Gaming, Banking (US), Insurance (US), SCM</p> <p>AI - Prompt Engineering, Computer Vision, RAG, Agentic AI Frameworks, LLM Orchestration, Context Engineering, MCP</p>	<p>Languages: Java, JS, Dart, TypeScript, Python</p> <p>Project Management: JIRA</p> <p>API Testing: Postman, SoapUI</p> <p>CI/CD: Jenkins, GitLab, GitHub Actions</p> <p>Database: MongoDB, PostgreSQL</p> <p>SCM: Git</p> <p>Automation frameworks: Selenium, Appium, WinAppDriver, WebdriverIO, Playwright, Flutter, REST Assured & Karate</p> <p>Performance Testing: K6 & JMeter</p> <p>AI Toolkit: DeepEval, Evidently, LangChain, LangSmith, Vercel AI SDK, Claude Code, Cursor</p>

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WORK EXPERIENCE

Org: TestVagrant Technologies

Project: Game Testing with LLM-Powered Agentic AI Framework

Member of the core initial development team tasked with transitioning a portfolio of 5,000+ browser-based slot games from manual testing to AI-driven automation. Contributed to building an Agentic AI Framework designed to navigate complex HTML5 Canvas and iFrame environments that were previously "untestable" using standard automation tools.

Responsibilities & Achievements

- Developed and refined components of an AI-powered testing tool using Playwright, enabling the framework to visually interpret and interact with dynamic game elements.
- Contributed to Prompt Tuning to ensure the AI accurately followed complex game rules and logic during automated sessions.
- Identified and resolved bugs within the AI's interaction toolset, ensuring reliable execution and reducing "flakiness" in automated game play
- Played a key role in the initial rollout and onboarding of new games into the AI framework, ensuring the tool could handle a diverse range of game mechanics.
- Integrated automated test suites into CI/CD pipelines using BrowserStack, enabling nightly automated build.
- Actively participated in Agile/Scrum processes, including daily stand-ups, sprint planning, and retrospectives, collaborating effectively with cross-functional teams.

Project: Enterprise Multi-Tenant Gaming Platform

Worked on a large-scale multi-tenant gaming platform supporting 30+ international game brands across multiple regions and languages. The platform included desktop, web, and mobile applications with dynamic UI, region-specific content, multi-language support, and brand-based customizations.

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Owned the end-to-end automation framework development for the web platform using Playwright with TypeScript, while also contributing to manual validation efforts for desktop poker application releases in an Agile/Scrum environment.

Responsibilities & Achievements

- Served as the sole automation engineer for the project, taking complete ownership of framework design, automation implementation, CI integration, execution stability, and release support activities.
- Designed and developed a scalable Playwright automation framework from scratch within a shared monorepo architecture, enabling automated test execution across 30+ game brands using a single reusable codebase.
- Architected a configuration-driven automation framework capable of handling dynamic UI rendering, regional content variations, multi-language support, and brand-specific customizations across 30+ international gaming brands.
- Integrated the automation framework with GitLab CI/CD pipelines and LambdaTest for automated cross-browser and cross-environment execution, ensuring reliable and consistent test execution during releases.
- Implemented dynamic test data and configuration handling within the framework, enabling stable automation execution across multiple brands, regions, and environments without requiring frequent script modifications.
- Performed manual validation for desktop game application releases, focusing on domain-specific UI behavior, layout consistency, gameplay-related visual integrity, environment compatibility, and release-critical functionality.
- Significantly reduced manual setup effort by developing an internal desktop utility tool to automate repetitive setup activities such as application installation, environment configuration, region/server switching, client cleanup, and uninstallation across 30+ game brands.
- Collaborated closely with developers, product managers, and QA teams to improve release testing processes and delivery timelines.
- Contributed throughout Agile sprint cycles by supporting web automation, desktop release validation, release coordination, sprint planning, stand-ups, and defect triage activities across desktop & web

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Project: Enterprise Supply Chain Management Platform

Worked on an enterprise based supply chain management platform focused on supplier visibility, disruption monitoring, compliance, and supply chain resiliency.

I was involved in end-to-end validation of complex business workflows across multiple modules within the platform. I contributed to UI, API, and database validation using Playwright with TypeScript, while also improving the automation framework architecture, test stability, and CI/CD reliability through reusable utilities and dynamic test data handling.

Responsibilities & Achievements

- Worked across multiple functional modules within the platform, contributing to regression testing, sanity validation, and automation coverage enhancements, which provided strong domain knowledge of the overall product ecosystem.
- Performed combined UI, API, and PostgreSQL database validation by integrating SQL query execution within automation scripts to validate backend data integrity and business workflows.
- Built and implemented a reusable fixture-based Playwright automation framework using shared utilities, helper components, and Playwright's built-in configurations, reducing repetitive boilerplate code by approximately 40% while significantly improving test reusability, readability, scalability, and long-term maintainability across multiple modules.
- Integrated automated test execution into GitHub Actions CI/CD pipelines, ensuring reliable regression execution

Org: NetXD Inc

Worked on a US-based banking product focused on payment processing and ledger systems. Handled performance testing using K6, developed a custom extension in Golang, and automated API & UI tests using Karate. Managed QA for the ACH reconciliation module and specialized in ACH payment testing with exposure to Wire and RTP transactions.

Responsibilities & Achievements

- Performed performance testing for a ledger product using K6
- Developed a custom K6 extension in Golang to support ECDSA API signature verification.

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- Automated API and UI tests with the Karate framework, significantly reducing manual testing efforts and expanding test coverage.
- Independently managed the entire QA process for the ACH reconciliation module within the ledger system, ensuring comprehensive validation and timely delivery.
- Specialized in ACH payment type testing, ensuring compliance with US banking standards, with additional knowledge in Wire and RTP transactions.

Org: Cognizant

Project: US Based Insurance

Worked on web and desktop automation for legacy and modern insurance applications using Selenium and WinAppDriver. Part of the internal tool development team for desktop automation, integrating WinAppDriver support. Managed end-to-end QA for the authentication and authorization module. Contributed to CI/CD smoke testing and participated in Agile processes.

Responsibilities & Achievements

- Conducted functional & regression testing across diverse Insurance applications.
- Performed feasibility testing for a 90s legacy application using Appium and WinAppDriver to evaluate its compatibility and functionality in modern environments
- Automated a 90s legacy Windows application using WinAppDriver, reducing manual testing efforts by 80%.
- Integrated Windows automation capabilities using WinAppDriver into an internal testing tool, releasing it as a new version.
- Implemented automated regression tests with Selenium, reducing the regression suite execution time by 60%.
- Implemented a production environment smoke test that runs every 4 hours within the testing CI/CD pipeline.
- Managed the complete QA process for an authentication and authorization application within an Agile project including both manual and automated testing, ensuring thorough testing and timely delivery.
- Documented and tracked bugs using JIRA, working closely with developers to resolve issues and verify fixes.
- Actively participated in Agile/Scrum processes, including daily stand-ups, sprint planning, and retrospectives, collaborating effectively with cross-functional teams.

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