Sai Raghavendra Maddula

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PROFESSIONAL SUMMARY

Detail-oriented **Senior Test Specialist** with **4+ years of experience** in **automated testing, software quality assurance, and AI-driven test automation**. Proficient in designing, developing, and executing test automation frameworks using **Selenium WebDriver, Java, and TestNG/JUnit**. Strong expertise in **CI/CD pipeline integration, DevOps, cloud-based test automation, and full-stack development**. Proven track record of delivering high-quality AI/ML projects with **error-free test execution and performance validation**. Seeking an opportunity to **leverage automation expertise** to enhance software testing efficiency and reliability.

TECHNICAL SKILLS

- **Test Automation:** Selenium WebDriver, TestNG, JUnit, Cucumber, REST Assured
- **Programming Languages:** Java, Python, JavaScript, C, C++
- **DevOps & CI/CD:** Docker, Kubernetes, Jenkins, GitHub Actions, Azure DevOps, AWS CodePipeline
- **Cloud Technologies:** AWS (ECS, Lambda, S3, RDS, DynamoDB), GCP, Azure (AKS, Virtual Machines)
- **AI & ML Testing:** RAG-based AI Models, OpenAI, LangChain, NLP, AutoGen, CrewAI
- **Databases & Data Engineering:** MySQL, PostgreSQL, MongoDB, Vector DBs (FAISS, Pinecone)
- **Security & Authentication:** OAuth 2.0, AWS Cognito
- **Test Management Tools:** JIRA, Zephyr, Postman, Selenium Grid
- **Software Development:** FastAPI, Flask, Node.js, React, Next.js, RESTful APIs
- **Automation Best Practices:** Agile, SDLC, Regression Testing, Performance Testing

PROFESSIONAL EXPERIENCE

Senior Test Specialist – Selenium & Java (Freelancer, 2022 – Present)
Remote | **Key Technologies: Selenium WebDriver, Java, TestNG, AWS, CI/CD**

- Developed and implemented **automated test scripts** using **Selenium WebDriver and Java**, reducing manual testing efforts by **80%**.
- Designed and executed **comprehensive test plans and test cases**, ensuring 95%+ defect detection before production.
- Integrated **test automation frameworks (TestNG, Cucumber, JUnit)** with **CI/CD pipelines (Jenkins, GitHub Actions, AWS CodePipeline)** for continuous testing.
- Identified, documented, and tracked bugs using **JIRA**, collaborating with cross-functional teams to **ensure issue resolution**.
- Conducted **functional, regression, and performance testing**, ensuring the **stability and scalability** of AI/ML-driven applications.
- Implemented **cloud-based test execution on AWS**, optimizing test runtime by **40%**.

Microsoft Learn Intern
Hyderabad, India | **June 2020 – July 2021**

- Built and deployed **automated test cases** for **AI-powered recommendation systems** using NLP and data mining.
- Developed CI/CD pipelines for **automated testing and deployment** in **Azure DevOps and Jenkins**.
- Automated infrastructure provisioning with **Ansible and Terraform**, improving test scalability.
- Designed test cases for **AWS-based cloud architectures (EC2, S3, EBS)** to ensure **high availability and security**.

PROJECTS & TEST AUTOMATION EXPERIENCE

Scorify AI – AI-Driven Interactive Learning Platform
Technologies: Selenium, Java, OpenAI, Google Vision API, AWS Amplify

- Designed and implemented **automated UI testing** for **Scorify's interactive learning platform** using **Selenium WebDriver and TestNG**.
- Automated **test cases for AI-driven assessments and text processing functionalities**, ensuring **99% reliability**.
- **Validated API integrations** using **Postman** for **OpenAI and Google Vision API endpoints**.

ZeeZ AI – AI-Powered Learning & Productivity Suite
Technologies: Selenium, Java, Flask, AWS (EC2, S3, DynamoDB)

- Developed **end-to-end automation scripts** to validate **AI-powered quiz generation, image-to-text processing, and text-to-speech functionalities**.
- Created **performance test cases** to optimize the **scalability of LangChain-based AI models**.

LingoMate AI – AI-Driven Multilingual Chatbot
Technologies: Selenium, Java, OpenAI, Node.js, AWS Lambda

- Conducted **functional and regression testing** for **multilingual AI chatbot interactions**.
- Designed **automated test suites** for **sentiment analysis and AI response accuracy validation**.

CERTIFICATIONS
AWS Certified Solutions Architect – Associate *(2023)*
Certified Selenium WebDriver Tester – Java *(2023)*
Azure DevOps Engineer Expert *(2024)*

EDUCATION
Master's in Computer Science
Christian Brothers University, Memphis, TN, USA **(Graduated Dec 2024, GPA: 4.0/4.0)**
Bachelor's in Computer Science & Engineering
KL University, AP, India **(Graduated 2022, GPA: 7.5/10.0)**

Publications

Robust Azure CI/CD for Seamless Software Delivery
Sai Raghavendra Maddula
Published in the Proceedings of the IESTOC 2023 Conference, Christian Brothers University, Memphis, TN, USA.

Description: Focused on automating deployments, optimizing processes, and minimizing manual interventions to improve DevOps collaboration. Demonstrated Azure CI/CD pipelines for efficient microservices management and deployment to Azure Kubernetes clusters.

Project: Robust Azure DevOps CI/CD Automation for Django Application
Sai Raghavendra Maddula
Capstone Project, Christian Brothers University, Summer 2024.

Description: Implemented a CI/CD pipeline for Django applications using Azure DevOps, Docker, and Kubernetes. Enhanced operational efficiency and adaptability with an automated workflow for deployment and testing.