FARUK HASAN

Software QA Engineer | Automation & AI-Driven Testing Specialist

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PROFESSIONAL SUMMARY

Results-driven **QA Engineer** with **5+ years** of experience in automation and manual testing. Proficient in **Selenium** (Java/Python), **Playwright** (JavaScript/TypeScript/Python), and API testing. Improved test coverage from 40% to 60% while specializing in **AI-driven** testing and validating LLM models like Anthropic Claude to enhance functionality and user experience. Skilled in **CI/CD** pipeline implementation (Git, GitHub, Jenkins, TeamCity, AWS) and optimizing automation frameworks for efficiency and scalability. Currently expanding expertise in **React** for frontend testing and **LangChain** for advanced AI integration to drive innovation in test automation.

KEY SKILLS

Test Automation – Playwright, Selenium, Postman, JMeter

AI-Driven Testing – LLM Validation, AI-Powered Test Automation, Prompt Engineering

CI/CD & DevOps – Jenkins, GitHub Actions, TeamCity, AWS, Docker, Kubernetes

Full-Stack Testing – Frontend (React, HTML, CSS), Backend (Postman, SQL, API Testing)

Programming – JavaScript, TypeScript, Python, Java

Cloud & Infrastructure – AWS, EC2, S3, IAM, Terraform

Leadership & Mentorship – Technical guidance, Training Teams & Interns, Improving Test Strategies

TECHNICAL EXPERTISE

Test Automation: Playwright (Expert), Selenium (Expert), TestNG (Advanced), Appium (Intermediate), JMeter (Advanced), BDD/TDD, Regression Testing

Programming: JavaScript (Expert), TypeScript (Advanced), Python (Advanced), Java (Intermediate), SQL (Advanced), HTML/CSS (Intermediate)

AI & ML Testing: ZeroStepAI (Advanced), OpenAI API (Advanced), Anthropic Claude (Intermediate), LangChain (Beginner), Prompt Engineering, LLM Validation

DevOps & CI/CD: Jenkins (Advanced), GitHub Actions (Advanced), TeamCity (Intermediate), AWS (Intermediate), Docker, Kubernetes, Git

Databases & APIs: SQL (Advanced), MySQL (Intermediate), MongoDB (Intermediate), Postman, REST/SOAP Services, Data Validation

Frontend & Tools: React Testing, Cross-browser Testing, Jira (Advanced), Confluence, Agile/Scrum, Requirements Traceability Matrix

PROFESSIONAL EXPERIENCES

Digital.ai, Remote   **September, 2022 – Present**
Role: Senior Software QA Engineer
<u>Key Contributions and Achievements:</u>

- **Automated Testing Framework:** Increase automation coverage from **40% to 50%** by developing Playwright, TypeScript, and Python test cases, improving test reliability.

- **Test Execution Optimization:** Cut UI test cycle time by **50%** via **parallel and cross-browser testing**, enabling faster feedback loops.

- **AI-Driven Testing:** Establish AI validation protocols by using **ZeroStepAI, GitHub Copilot**, and **prompt engineering for LLMs**, ensuring content accuracy.

- **CI/CD Pipeline Optimization:** Design **TeamCity/Jenkins CI/CD pipelines** with **Shell scripting & AWS**, reducing deployment time and errors.

- **Production Incident Analysis:** Minimize recurring issues by integrating **Playwright, JMeter, and Python** into automated root cause testing, enhancing system reliability.

- **Performance Monitoring:** Improve system reliability with **JMeter performance testing** and **Pendo/SharePoint** for real-time user engagement tracking.

- **Knowledge Sharing & Thought Leadership:** Present to the QE Guild on emerging tools and techniques in automation testing, fostering innovation and continuous learning.

- **Mentorship & Training:** Guide interns on QA best practices, providing hands-on training and mentorship to develop their automation and testing skills.

M.M.Hayes, Co., Inc. NY   **March, 2020 – August, 2022**
Role: Software Test Engineer
<u>Responsibilities & Impact:</u>

- **Selenium-Java Automation:** Developed a **Selenium-based framework** using **Java, and TestNG**, boosting test coverage and efficiency by **30%**, accelerating release cycles.

- **Regression Testing Optimization:** Reduced regression cycle time by **50%** through **parallel & cross-browser testing** and improved test selection.

- **Test Case Management:** Migrated test cases to **Jira** and established **RTM**, ensuring full traceability and improved reporting.

- **Backend Data Validation:** Strengthened **data integrity** by implementing **SQL-based automated validation**, cutting data-related defects by **40%**.
- **Technical Leadership:** Mentored junior engineers, improving **team proficiency and testing quality**, aligning strategies with project goals.
- **Mobile Application Testing with Appium & Java**: Developed and executed automated test scripts for mobile applications, leveraging Appium with Java, ensuring cross-platform compatibility and enhancing mobile app stability by 35%.
- **POS System & Desktop Application Testing**: Designed and implemented automated test cases for Point-of-Sale (POS) systems and desktop applications, improving defect detection and reducing testing time by 25%.

EDUCATION

Masters of Science in Electrical Engineering   *(Graduated: 2016)*

Loyola Marymount University

Bachelor of Science in Electrical Engineering   *(Graduated: 2011)*

Queen Mary, University of London

COURSE INSTRUCTOR AND GITHUB PROJECTS

Python Fundamentals: Fun and Practical Projects for Beginners – **Udemy, 2024**
Course Link

Advanced Python/Playwright Development: Git, OOP, Pytest, Playwright, and Flask – **Outschool**, 2023
Course Link

Playwright Browser Extension: Developing a Chrome extension to display Playwright test results in real time, using JavaScript, and HTML/CSS. (Ongoing Project)
GitHub Link