

Mahendra Akula

Senior SDET & Automation Architect | Playwright · Cypress · CI/CD · Cloud | AWS Certified

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AWS Certified
AI Practitioner
Foundational

★ Early Adopter
AWS Certified
GenAI Developer
Professional

PROFESSIONAL SUMMARY

Senior SDET and Automation Architect with **13+ years** of experience building enterprise-grade automation frameworks, scalable CI/CD pipelines, and cloud-based QA platforms across FinTech, SaaS, Healthcare, E-commerce, and Public Sector domains. Deep hands-on expertise in **Playwright** (cross-browser, API, component, and accessibility testing), Cypress, REST Assured, JUnit, TestNG, and Maven — spanning unit, integration, functional, performance, and chaos testing layers. Strong DevOps background with Jenkins (Core/monorepo), GitHub/Bitbucket, Azure DevOps, and cloud-native AWS environments. **AWS Certified AI Practitioner** and **AWS Certified Generative AI Developer – Professional (Early Adopter, Top 5,000 globally)**. Proven record of improving release velocity, regression stability, and production health at Finra, Fannie Mae, Northern Trust, Best Buy, Freshworks, WebMD, and DMV modernization programs.

AWS CERTIFICATIONS & CREDENTIALS



Early Adopter — AWS Certified Generative AI Developer – Professional

Among the first 5,000 individuals worldwide to earn this certification. Issued by Amazon Web Services Training & Certification.

★ Early Adopter — Top 5,000 Globally

AWS Certified Generative AI Developer – Professional

Amazon Web Services Training & Certification

Amazon Bedrock · Foundation Models · RAG Pipelines · Prompt Engineering
· AI Agents · LLM Evaluation · GenAI on AWS

AWS Certified AI Practitioner

Amazon Web Services Training & Certification

Foundational

AI/ML on AWS · Machine Learning · Artificial Intelligence · Cloud AI Services · AWS Certification

PROFESSIONAL EXPERIENCE

Senior SDET — Compunnel Inc (Client: Finra)

05/2023 – Present

- Architect and lead **Playwright**-based automation framework covering cross-browser UI, API, component, and accessibility testing across regulatory financial applications.
- Design multi-layer test strategy spanning unit, integration, functional, and scenario testing using **Playwright**, Cypress, REST Assured, and Postman; significantly improving regression stability and release confidence.
- Engineer and optimize **CI/CD pipelines** in Jenkins (monorepo) and Azure DevOps — including branching strategies, merge gates, version control workflows, and deployment automation with shift-left quality enforcement.
- Develop SQL queries and implement data seeding strategies to support automated test scenarios across complex financial data environments.
- Lead **performance testing** and contribute to chaos testing and security testing activities to validate system resilience.
- Use **Amazon Q, Kiro CLI, and LLM tools** to accelerate test case authoring, generate edge-case scenarios, and automate failure triage via **Playwright** MCP integrations.
- Apply **AWS Generative AI and Amazon Bedrock** to build intelligent test generation pipelines; actively contribute to cloud environment management on AWS.
- Evaluate and recommend emerging testing tools and frameworks; led adoption of **Playwright** for cross-browser and API-layer automation replacing legacy WebDriver-based suites.

Senior Automation Engineer — Friendly Consultants Inc (Clients: Fannie Mae, Northern Trust, Best Buy)

04/2022 – 05/2023

- Designed scalable **Playwright** and Cypress automation frameworks (SpecFlow/Gherkin + JavaScript) from scratch for multifamily loan workflows at Fannie Mae, covering functional and integration layers.
- Built REST API automation using Rest Assured/RestSharp and Java; validated complex back-end workflows, ETL batch processes, and database interactions with custom SQL data seeding strategies.
- Architected **Playwright** and BDD-based test suites for wealth-management portals at Northern Trust, including accessibility and cross-browser coverage.
- Developed UI and API automation (Java + Selenium + REST tools) for Best Buy's omni-channel platform; maintained build/release CI/CD definitions in Azure DevOps with Git-based branching strategies.
- Contributed to cloud migration efforts on AWS and supported ongoing cloud environment management and observability improvements.

Senior Software Engineer in Test — Freshworks (Freshservice ITSM)

02/2020 – 04/2022

- Built hybrid frameworks (Keyword + Data-Driven) for backend and REST API automation using Rest Assured, Ruby, RSpec, and Selenium; introduced **Playwright** for front-end regression automation.
- Designed and maintained CI/CD pipelines (Jenkins, Bamboo) with automated test gates, version control policies, and deployment automation in monorepo environments.
- Worked with AWS clusters, Kubernetes, and Docker as part of build and deployment pipelines; supported performance testing with load scenario design.
- Implemented SQL-based data seeding and validation strategies to support automated testing of ITSM workflows and API integrations.

- Implemented BDD frameworks using Cucumber + Selenium POM for healthcare content and services; evaluated and introduced **Playwright** for improved cross-browser and accessibility testing coverage.
- Automated UI and API flows using Selenium WebDriver, TestNG, Postman, and Swagger; performed microservices and integration testing.
- Developed SQL queries for test data management and contributed to test coverage analysis and quality reporting.

Senior Software Test Engineer — Tech Mahindra (Client: NH DMV – MOVES)

02/2016 – 07/2018

- Led end-to-end testing for DMV modernization (vehicle registration, licensing, financial responsibility modules) across functional, integration, and regression layers.
- Designed test cases using Conformiq Creator (MBT) and Selenium WebDriver + TestNG; built CI pipelines using Jenkins for automated regression execution.

Senior Software Engineer / SDET — Ideabytes Inc

08/2012 – 02/2016

- Developed and executed automation frameworks using Selenium WebDriver, TestNG, SoapUI, and SQL across multiple customer projects spanning web and API layers.

CORE SKILLS

🛠️ Playwright & Web Automation

Playwright (cross-browser, API, component, accessibility), Cypress, Selenium WebDriver, Selenium Grid, BrowserStack, Perfecto, Galen Framework

CI/CD & DevOps

Jenkins Core (monorepo, LWC), Azure DevOps, GitHub Actions, Bamboo, Maven; Git, GitHub, Bitbucket/Stash, Sourcetree; branching strategies, deployment automation

Performance, Chaos & Security Testing

Performance testing, chaos engineering practices, security testing support, load scenario design, BrowserMob Proxy

Programming

Java, JavaScript, Node.js, Ruby, SQL

Test Frameworks & Methodologies

Hybrid, POM, Data-Driven, Keyword-Driven, BDD/ATDD (Cucumber, SpecFlow, Gherkin), Serenity, MBT, API-first frameworks, accessibility standards (WCAG)

API, Integration & ETL Testing

REST Assured, Postman, RestSharp, SoapUI, JUnit, TestNG, Maven, ETL batch testing, microservices validation, SQL data seeding

Cloud & Infrastructure

AWS (S3, Bedrock, EC2, AI Services), Azure; Docker, Kubernetes; cloud migration, environment management; AWS Certified AI Practitioner; AWS Certified GenAI Developer

Observability & Monitoring

Splunk, Datadog, Dynatrace, New Relic; production system health monitoring, failure analysis

AI & Generative AI (AWS)

Amazon Bedrock, Foundation Models, RAG Pipelines, Prompt Engineering, AI Agents, LLM Evaluation, Amazon Q, Kiro CLI, MCP Integrations

Quality & Process

STLC, Agile/Scrum, Waterfall, V-Model; Test Strategy, Test Plans, RTM, Impact Analysis, Onsite-Offshore coordination; Jira, Azure DevOps, Rally

EDUCATION

MCA, Computer Science — Osmania University, Hyderabad, India

BSc — Kakatiya University, India

2011