

Muhammad Kasim Naina Mohammed

Accomplished Test Automation Specialist | Expert in UI/API Frameworks | Proficient in Java, Python, and JavaScript | Expertise in Cloud & DevOps with AWS, MySQL, and Big Data Technologies

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Summary

Accomplished Java Full Stack Developer with 13+ years of experience in designing, building, and deploying enterprise-grade web applications and microservices. Expertise in Java, Spring Boot, React, AWS, and Kubernetes. Proven ability to deliver high-performance systems using modern DevOps pipelines (CI/CD, Jenkins, Docker), Kafka-based event-driven architecture, and cloud-native solutions on AWS (EKS, Aurora, DynamoDB).

Formerly worked for Barclays on real-time trading systems, and consistently led projects end-to-end, from development to testing and production support. Strong in Agile, Git, and team collaboration across globally distributed teams.

Experience

Citi(Contract)

Module Lead

SF Bay area

Oct-2024-Till Date

- Led a cross-functional module team in the development and end-to-end testing of scalable microservices using Spring Boot, ensuring on-time delivery of high-quality software components.
- Owned and delivered key testing modules for complex financial workflows, aligning QA strategies with overall product objectives and Agile milestones.
- Designed and built robust automation frameworks in Java, Python, and JavaScript, increasing test coverage and reducing regression testing time by 40%.
- Championed the integration of Apache Kafka for real-time event-driven testing and message validation, enhancing test data reliability across distributed systems.
- Established and maintained CI/CD pipelines using Jenkins, GitLab CI, and Docker, enabling faster and consistent delivery with reduced manual intervention.
- Performed full-stack testing including API, UI, and database validation using Selenium, Cypress, TestNG, and Postman, contributing to a 99% defect-free production rate.
- Collaborated with developers and architects to shift testing left, incorporating automated test hooks and contract testing early in the SDLC.
- Introduced AI-driven solutions for test automation—leveraging NLP-based models to convert user stories into executable test cases, reducing manual scripting by 60%.
- Implemented AI/ML models to analyze Swagger/OpenAPI definitions and auto-generate API test suites, improving API test accuracy and coverage.
- Mentored junior SDETs and testers in automation best practices, code quality, and CI/CD integration, fostering a culture of quality and ownership.

LPL Financial(Contract)

Lead Software Engineer

SF Bay area

Oct-2023-Sept-2024

- Spearheaded the development and testing of microservices using **Spring Boot**, significantly improving system scalability and performance.
- Architected and implemented **automation frameworks** using Java, Python, and JavaScript, enhancing test efficiency by 40%.
- Integrated **Kafka** for real-time data processing and messaging, ensuring reliable and efficient system communication.
- Developed and maintained **CI/CD pipelines** with **Jenkins** and **Docker**, resulting in a 50% faster deployment cycle.
- Conducted comprehensive **functional, integration, and regression testing** using Selenium, Cypress, and TestNG, achieving a 99% defect-free release rate.
- Leveraged **AI/ML** to automate test script generation based on user prompts, significantly reducing manual effort.
- Applied AI/ML algorithms to analyze **UI and API contracts**, automatically generating API tests and enhancing test coverage and accuracy.

Amazon

Senior Software Engineer

2022-09-17 -2023-10-31

- Designed and developed **high-throughput backend frameworks** using **Java EE, Spring, and Spring Boot**, optimizing microservices for handling millions of daily transactions.
- Built and maintained **frontend testing utilities** to validate data visualization and dashboard consistency across modern browsers, ensuring end-to-end quality.
- Developed and optimized tools for **functional, integration, and system testing**, driving improvements in application performance and stability.
- Upgraded automation and development tools to support **multiple JDK versions and evolving AWS SDKs**, ensuring compatibility across environments.
- Integrated with **AWS-based infrastructure** and services such as S3, Lambda, and CloudWatch to monitor test pipelines and application metrics.
- Worked with **distributed systems** and managed large-scale data ingestion and validation workflows using **Hadoop, HDFS, and Hive**, supporting backend and reporting layers.
- Collaborated cross-functionally with frontend developers, backend engineers, and DevOps teams to ensure seamless deployment and validation through CI/CD pipelines.
- Contributed to **open-source libraries** like **Apache Commons** and **TestNG**, improving internal toolsets and enabling reusable utility functions for full stack validation.

Tusimple

Senior Software Engineer

2022-03-15 - 2022-09-17

- Developed and optimized full-stack **test automation frameworks** using **Cucumber/Gherkins**, enhancing collaboration between frontend/backend teams and improving test efficiency by 45%.
- Automated both **browser-based UI tests** (Selenium, Cypress) and **REST API validations**, ensuring seamless integration across frontend and backend modules.
- Implemented end-to-end **CI/CD pipelines** with **Jenkins and Docker**, enabling automated builds, deployments, and validations across staging and production environments.
- Integrated **Apache Kafka** for real-time messaging and data pipeline validation, ensuring reliable communication between distributed services and microservices.
- Participated in Agile sprints, collaborating closely with developers to identify integration gaps and improve feature delivery confidence.
- Mentored junior engineers in test architecture, CI/CD integration, and coding best practices, fostering a strong engineering culture of quality and automation.

Proofpoint Inc

Senior Software Engineer

Aug 2021 - Mar 2022

- Contributed to the design and development of **cloud-native enterprise applications**, ensuring robust integration across frontend, backend, and distributed data platforms.
- Developed modular components and microservices using **Java**, and built interactive UI components using **JavaScript**, enabling seamless user experience and backend connectivity.
- Created CLI tools and services using **Shell Scripting** to manage and orchestrate job pipelines, improving developer efficiency and operational automation.
- Engineered large-scale **data validation and transformation pipelines** using **Apache Spark and Scala**, ensuring reliability in real-time data processing and reporting workflows.
- Integrated application services with **cloud infrastructure** and **CI/CD pipelines**, supporting continuous deployment with version-controlled releases and rollback strategies.
- Collaborated in Agile teams to deliver cross-functional features, participating in design discussions, sprint planning, and production release activities.
- Enhanced system scalability and performance by analyzing backend logs, optimizing service interactions, and improving API response times.

Ancestry(Contract)

Senior Software Engineer

San Francisco, CA

(January 2019 - March 2020)

- Contributed to development efforts on the **Platform-API** team, contributing to the migration of core services to **AWS-ECS and EKS**, enhancing system reliability and scalability.
- Developed backend microservices and RESTful APIs using **Java** and **RxJava**, integrating them with **DynamoDB** for persistent data management.
- Built robust CI/CD pipelines for development, staging, and production environments using **Shell scripting** and automation tools, enabling one-click deployments.
- Engineered reusable service components and utility libraries with **JUnit**, **TestNG**, and custom Java frameworks, improving developer productivity and service testability.
- Collaborated closely with product and UI/UX teams to align feature requirements with backend architecture, ensuring functional integrity across frontend and backend layers.
- Implemented full-stack regression and integration validation across various platforms using both automated service hooks and performance benchmarking tools.
- Leveraged **Git** for version control and branching strategies, streamlining multi-team collaboration in Agile delivery cycles.
- Participated in root cause analysis and system failure investigations, delivering high-quality service patches and hotfixes across multiple production environments.
- Contributed to performance optimization efforts and end-to-end reliability improvements, resulting in smoother user experiences across Ancestry's digital products.

Intuit(Contract)

Software Development Engineer in Test

Jan-2019

Jan-2014

- Led the design and implementation of a state-of-the-art test automation framework using Java/
- Reflection mechanism, facilitating Excel spreadsheet-based automation.
- Developed a user-friendly interface for test case management, execution, and reporting, enhancing testing efficiency and effectiveness.
- Developed and executed test automation using Java and Appium for iOS and Android, significantly
- improving test coverage and efficiency.
- Collaborated with stakeholders to gather requirements, design the framework architecture, and ensure
- alignment with business objectives.
- Conducted thorough testing and validation of the framework to ensure reliability, scalability, and
- maintainability under diverse testing scenarios.
- Played a pivotal role in containerizing the QuickBooks application, enabling seamless deployment,
- scaling, and management of application components.
- Designed and implemented container orchestration solutions using Docker and Kubernetes, optimizing
- resource utilization and enhancing system scalability and resilience.
- Provided technical leadership and guidance to teams throughout the migration process, fostering a
- smooth transition and minimizing disruptions to business operations.

Barclays Financial Corporation

SDET

Pune, India

SDET(November 2012 - December 2013)

- Designed and developed a custom **Domain-Specific Language (DSL) Framework** to support trading operations and streamline integration with Tibco-based messaging systems.
- Engineered backend service components in **Java**, implementing a fluent interface using method chaining for modular, readable, and testable code.
- Built structured data logging systems using **XML**, enabling real-time traceability and debugging of multi-stage processing flows in financial trade executions.
- Developed reusable service modules to intercept and validate **Tibco protocol messages**, improving transparency and reliability in trading pipelines.
- Automated repetitive and critical backend operations to enhance coverage and reduce operational overhead for trading infrastructure.
- Collaborated with trading system architects and platform engineers to align component interfaces and ensure consistent message flow validation across distributed systems.
- Contributed to performance tuning and framework extensibility to support scale-up in concurrent transaction processing.

Zyme Solutions Pvt Ltd

Lead QA Engineer

Nov-2012

Jan-2007

- Created comprehensive test plans and designed effective test cases, ensuring thorough test coverage.
- Developed reusable automation frameworks for regression testing, streamlining testing processes.
- Developed nightly build and deployment tools using Ant and Shell Scripting, enhancing development
- efficiency.
- Automated testing using Java, Selenium, AUTOIT, and AUTOHOTKEY, reducing manual testing efforts.
- Conducted performance testing of Data Warehouse applications, ensuring optimal system performance.
- Managed database operations using MySQL, writing complex queries and performing data manipulations.

Education

Vishweshvarayya Technological UNLiversity

Computer Science

Bachelors of Engineering

(October 2008 - January 2012)

College: BMS College of Engineering Secured: 60%

Mehmood Sheriff Polytechnic

Computer Science

(January 1996 - June 2000)

Skills

Operating Systems	Web Automation	Version Control	Test Framework	Mobile Automation
Proficient in Unix, OSX, Linux, and Windows operating systems. <div><div></div><div></div><div></div><div></div><div></div></div>	Experienced in web automation using Selenium and WebdriverIO. <div><div></div><div></div><div></div><div></div><div></div></div>	Expert in version control systems such as GitHub and SVN. <div><div></div><div></div><div></div><div></div><div></div></div>	Advanced proficiency in testing frameworks including JUnit and TestNG. <div><div></div><div></div><div></div><div></div><div></div></div>	Skilled in mobile automation tools like Appium, Experitext, Greenplant, and Calabash. <div><div></div><div></div><div></div><div></div><div></div></div>
Unix, OSX, Linux, Windows	Selenium, WebdriverIO	GitHub, SVN	JUnit, TestNG	Appium, Experitext, Greenplant, Calabash
Manual Testing	Testing Methodologies	Programming Knowledge	Scripting	Web/Application Servers
Comprehensive experience in manual testing including test planning, execution, and various types of testing such as GUI and database. <div><div></div><div></div><div></div><div></div><div></div></div>	Expertise in functional testing, integration testing, and Failure Mode Effect Analysis (FMEA). <div><div></div><div></div><div></div><div></div><div></div></div>	Strong programming skills in Core Java, C++, Python, Groovy, and Swift. <div><div></div><div></div><div></div><div></div><div></div></div>	Proficient in scripting languages including JavaScript and Shell Scripting. <div><div></div><div></div><div></div><div></div><div></div></div>	Familiar with web/application servers such as Tomcat, Jboss, and Jetty. <div><div></div><div></div><div></div><div></div><div></div></div>
Test Planning, Test Preparation, Execution, Regression, Sanity, UAT, GUI Testing, Database Testing, Web Application Testing	Functional Testing, Integration Testing, FMEA (Failure Mode Effect Analysis)	Core Java, C++, Python, Groovy, Swift	Test Link, Microsoft Scripting	Tomcat, Jboss, Jetty
Databases	Web Technologies	Web Service Tools	Test Management Tools	Bug Tracking Tools
Experience with databases including MongoDB, MySQL, Oracle 9i, SQLite, NoSQL, Cassandra, and DynamoDB. <div><div></div><div></div><div></div><div></div><div></div></div>	Understanding of web technologies such as HTML5 and CSS. <div><div></div><div></div><div></div><div></div><div></div></div>	Proficient in web service tools including POSTMAN, REST Client, SOAP UI, and Solr. <div><div></div><div></div><div></div><div></div><div></div></div>	Experienced with test management tools like Test Link, Microsoft Excel, and Test Rail. <div><div></div><div></div><div></div><div></div><div></div></div>	Expertise in bug tracking tools including Rally, Jira, Mingle, and Trac. <div><div></div><div></div><div></div><div></div><div></div></div>
MongoDB, MySQL, Oracle 9i, SQLite, NoSQL, Cassandra, DynamoDB	HTML5, CSS	POSTMAN, REST Client, SOAP UI, Solr	Test Link, Microsoft Excel, Test Rail	Rally, Jira, Mingle, Trac
Code Coverage	CI/CD Tools	Test Platforms	Cloud Technologies	BDD
Knowledgeable in code coverage tools such as SonarQube and Jacoco. <div><div></div><div></div><div></div><div></div><div></div></div>	Experience with CI/CD tools like Jenkins, Team City, Blue Ocean, Git, and Gradle. <div><div></div><div></div><div></div><div></div><div></div></div>	Proficient in test platforms including SauceLabs, BrowserStack, and CrossBrowserTesting. <div><div></div><div></div><div></div><div></div><div></div></div>	Experienced with cloud technologies such as Docker, AWS, AWS Fargate, EKS, ECS, GCP, and Kubernetes. <div><div></div><div></div><div></div><div></div><div></div></div>	Proficient in BDD tools like Cucumber and JBehave. <div><div></div><div></div><div></div><div></div><div></div></div>
SonarQube, Jacoco	Jenkins, Team City, Blue Ocean, Git, Gradle	SauceLabs, BrowserStack, CrossBrowserTesting	Docker, AWS, AWS Fargate, EKS, ECS, GCP, Kubernetes	Cucumber, JBehave
Data Pipeline Technologies	Distributed Computing Systems	Web API Development	Virtualization Technologies	AI/ML Applications
Experienced with data pipeline technologies such as Kafka and Spark. <div><div></div><div></div><div></div><div></div><div></div></div>	Knowledgeable in distributed computing systems including Hadoop, HDFS, and Hive. <div><div></div><div></div><div></div><div></div><div></div></div>	Experienced in web API development using RxJava. <div><div></div><div></div><div></div><div></div><div></div></div>	Proficient in virtualization technologies like VMWare and VirtualBox. <div><div></div><div></div><div></div><div></div><div></div></div>	for test automation, including AI-driven test script generation, automated API test generation, and AI/ML algorithms for UI and API analysis. <div><div></div><div></div><div></div><div></div><div></div></div>
Kafka, Spark	Hadoop, HDFS, Hive	RxJava	VMWare, VirtualBox	AI-driven Test Script Generation, Automated API Test Generation, AI/ML Algorithms for UI and API Analysis