**Md Akmal Hossain**

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**PROFESSIONAL SUMMARY**

Experienced QA Automation Engineer with 10+ years in software testing across manual and automation frameworks. Expertise in converting manual test cases to automated tests, reducing manual effort by 80%. Skilled in developing hybrid frameworks using Java, Selenium WebDriver, TestNG, and implementing CI/CD pipelines. Proficient in REST API testing, database validation, and cloud technologies including AWS, PCF, GCP and Azure. Demonstrated success in Agile environments delivering quality software while meeting aggressive timelines.

**TECHNICAL SKILLS**

* **Methodologies:** SDLC/STLC, Agile, Kanban, Waterfall
* **UI Automation:** Selenium WebDriver, Cucumber BDD, Cypress
* **API/Performance:** RestAssured, SoapUI, JMeter, Postman, Karate
* **Frameworks:** Page Object Model, Data Driven, BDD/Cucumber, TDD/TestNG
* **CI/CD:** Jenkins, Git, GitHub, Bitbucket, SVN, Terraform
* **Containerization:** Docker, Kubernetes
* **Project Management:** JIRA, HP ALM, Test Link, LeapWork, Xray
* **Programming:** Java, JavaScript, JSON Python3, SQL, XML,
* **Databases:** IBM DB2, Oracle 8i ~ 19c, PostgreSQL, MS SQL Server, MySQL, MongoDB
* **Cloud:** AWS, Azure, PCF, GCP, Oracle Cloud Infrastructure

**PROFESSIONAL EXPERIENCE**

**Stellar Consulting (The Home Depot)**

**QA Automation Engineer | Sep 2024 – Present**

* Implemented and maintained CI/CD pipelines using GitHub Actions for Python applications, reducing deployment time by 70% and catching 30% more bugs before production
* Automated testing, linting, and deployment processes for team of 5 developers, improving code quality and release confidence
* Integrated security scanning into the pipeline, addressing 15 critical vulnerabilities before deployment
* Developed GCP-based testing environments using Terraform, reducing infrastructure setup time by 40%.
* Integrated Karate BDD test framework for API automation, improving test coverage by 20%.
* Managed SaaS application deployments using Docker and Kubernetes on Google Kubernetes Engine (GKE).
* Automated log monitoring and anomaly detection using **Google Cloud Operations Suite**
* POS Automation software installation in VDI/Laptop (windows)
* SCCM Remote control access to connect QA Clients.
* PTM (Pos Transaction manager) having staged transactions like Recall sale/tender/return/refund rearing and Non-Staged Transactions like sale, sale tender, tender, return, etc
* Using Karate Framework for API testing using IntelliJ Ultimate
* Implemented hands-on Karate framework with end-to-end testing.
* Automated the API services using the Karate framework for the Unit test, Integration testing, and regression testing.
* Continuously improve testing processes and frameworks for efficiency and accuracy.
* Collaborate with developers, product managers, and other QA team members to understand testing needs and objectives.
* Develop and execute detailed test plans, test cases, and test scripts.
* Ensure software application functionality, performance, and reliability through automated and manual API testing using Postman, NeoLoad
* Analyze and interpret assessment, test, and inspection results, determine the root cause of failures and non-conformities, and drive continuous improvement and best practices.
* Database connectivity JDBC with IBM Informix via DBeaver universal database manager.
* Running applications using VSCode for Mock Pin Pad, Mock signature pad and tested
* RSA token setup for authentication Google Cloud
* Conducted functional, regression, and compatibility testing for mobile applications on iOS and Android devices, reducing defect rates by 25% through detailed test case execution.
* Developed and maintained automated test scripts using Java with Appium, achieving 60% automation coverage for regression suites and cutting manual testing time by 30%.
* Created comprehensive test plans and cases based on functional requirements, ensuring 100% test coverage for key features.
* Performed cross-device testing on platforms like Samsung, Google Pixel, iPhone, and iPad, validating UI/UX consistency across screen sizes and OS versions.
* Executed manual testing for mobile and web applications, identifying over 150 critical bugs during pre-release phases.
* Wrote Java-based utility scripts to streamline test data generation, improving testing efficiency by 15%
* Developed and maintained PL/pgSQL scripts for complex data validation and transformation.
* Automated REST API testing for PostgreSQL-based applications using Rest Assured and Postman.
* Performed database migration testing, validating data transformation rules.
* Created detailed test plans, test cases, and test scripts for PostgreSQL database testing.

Environments**: Java 11,** Appium Karate Framework, IntelliJ Ultimate, Java 11, Postman, VSCode, npm & node, yarn, GCP, Jira, Confluence, Linux, MobaXtream,

**Randstad USA (Kaiser Permanente)**

**Sr. Automation Engineer (SDET) | Aug 2021 - July 2023**

* Designed and executed SQL queries and stored procedures to validate database integrity, indexing, and query performance.
* Automated database testing using Karate, Selenium, and Python scripting, reducing manual effort by 50%.
* Performed ETL testing, verifying data migration between DB2, PostgreSQL, and SQL Server environments.
* Integrated database validation scripts into CI/CD pipelines (Jenkins, Docker, Kubernetes) for automated testing.
* Optimized complex SQL queries, reducing execution time by 40% through indexing and partitioning.
* Worked closely with developers, DBAs, and DevOps teams to enhance data consistency and system performance.
* Worked on Test Data Management and Test Environment Management in the project.
* Responsible for Line test planning, test estimation, test execution, and defect management.
* Working as Test Co-Ordinator between onshore and offshore teams for TDM & TEM like qa, dev, prod, UAT
* For deployments in all functional test environments automated solutions.
* Experience in Manual and Automation testing of GUI and functional aspects of Client – server and web-based applications on multiple levels of SDLC and STLC
* Using Java OOP’s concepts for developing automation framework using Eclipse Maven, Selenium WebDriver, and TestNG with TDD approach.
* Using Java performed Data data-driven automation Testing and SQL, JDBC connection, and selenium WebDriver for test Automation.
* Used selenium GRID for cross-platform and cross-browser testing by running the test script on different versions.
* Implementation of CI/CD pipelines using Jenkins, and GitHub CI/CD to automate the build, test, and deployment processes of Python scripting.
* Using Python monitored and maintained CI/CD pipelines, troubleshoot issues, and implemented optimizations to enhance pipeline performance, reliability, and scalability.
* Implement continuous integration and continuous deployment (CI/CD) pipelines using Jenkins, Docker, and Kubernetes, resulting in faster feedback cycles and improved release processes.
* Work with the project teams on implementing the defined business Roles within Access & Identity Management (AIM) solution.
* Workflow manual testing of a series of tasks to produce a desired outcome in several stages.
* Using LEAPWORK with test cases and carrying out the steps as we navigate through the application it will automatically inspect the application element and suggest building blocks to use as well.
* Planned, developed, and executed the quality assurance activities.
* Testing on cloud-based like Azure, and Bluemix in environment QA, UAT, and Prod Testing.
* Created Cypress project in the command line and repo to manage codes.
* Build and enhance automated test framework using Cypress from scratch.
* To automate UI used Cypress, JavaScript, NodeJS, and NPM for the Angular base User interface
* Provide input to weekly reports, including periodic activities and projects (e.g. Jira, Confluence, SharePoint)
* Coordination and communication with the clients in analyzing and solving production issues. Experience using CICD tools such as Jenkins.
* Participate in the review, implementation, and training of testing standards, defect processing, and metrics reporting for the Quality Assurance department.
* Integrated with Jira and Xray. So, we have got 100% test results including manual and automation.
* Developed using Xray plug-in with Jira API and combined REST calls using JAVA.
* Used Jira-Xray to manage all phases of the software testing process like writing test cases and executing.

Environment & Tools: Java 1.8, DB2, Selenium WebDriver, Rest Assured, Postman, Jira, Confluence, Xray, Eclipse, Cypress, JavaScript, NPM NodeJS, Azure Cloud, Bluemix Cloud. Sauce Lab, Cypress

**Pyramid Consulting (Cox Communication)**

**Sr. QA Test Engineer | Jun 2021 – Jul 2021**

**Responsibilities:**

* The high-level workflows involve the following systems ICOMS, BACON, iControl, and SMP.
* Defined Business Use Cases and Activity Diagrams to represent different workflows and associations.
* Web portal testing for functional knowledge of Provisioning Systems in OSS.
* Involved in the weekly client meeting to develop in-depth knowledge and understanding of the application requirements.
* Generated Use Case diagrams using Microsoft Visio to depict process flows, timelines, and cost-benefit models.
* Test Planning, Test case design, Test Environment Setup, Test Data Setup, Defect Management, Test log, Test results, Test Traceability Matrix and Test Metrics.
* Generate and review Business Test Cases and prepared Use Case Documents.
* Create Workflow Diagrams, Process Models, Activity Diagrams, and Use Cases for incorporating design changes in business processes.
* Prepared the Vision Statement and Documents containing essential business elements and detailed definitions and facilitated requirements definition and vendor communication for desired system enhancements.
* Gathered User and Business Requirements through design sessions, brainstorming, and prototyping.
* Analyzed the impact of Business Process changes on the existing systems and process flows. Analyzed the testing efforts that would be undertaken by other systems due to the changes in current systems.
* Coordinated analysis, development, and testing efforts between various application teams.
* Studied existing Business Applications and Processes, collected End-User Requirements, analyzed sources of revenue leakage, and suggested the improvised business process model.
* Worked closely with Developers and User Representatives, participated in the Product Design Process including specifications and end-user reviews, and application walk-throughs.

Environment & Tools: GUI testing of ICOMS, BACON, iControl, SMP, and Postman.

**Datum Software**

**Sr. Automation Engineer | Sep 2020 – May 2021**

* Writing code and script to automate provisioning of Selenium Java using Page Object Model.
* Tested designs, develops, and maintains payment processing systems and APIs.
* Tested Implements security measures to protect sensitive payment data.
* Collaborates with cross-functional teams to integrate payment solutions into applications or websites.
* Tests and troubleshoots payment systems to ensure functionality and reliability.
* Wrote Test Automation Script using Java, Selenium WebDriver, and TestNG which performed sanity testing on every deployment performed in the QA Environment and sent Email Notification on failure.
* Wrote Test Automation Script using Java, Selenium WebDriver, and TestNG which performed Regression testing
* Developed a Hybrid Framework using Page Object and Data-Driven Model on top of TestNG and Selenium WebDriver for test automation.
* Experience in Core Java API, development by applying different concepts like OOPS concepts, Collections, Strings, and Functional Interfaces, Methods and Encapsulation, Class design, Exception handling, Multithreading, etc.
* Extensively used concepts of Core Java like Class, Object, OOPs (Inheritance, Polymorphism, Abstraction, and Encapsulation), Collections, and developed Page classes and POJO classes as per the requirements.
* Wrote AWS Lambda function in Java which invokes scripts to perform analytics on large data set clusters.
* Used AWS Lambda to automate the process with glue jobs using CloudWatch and S3 events
* For data pipeline glue jobs and orchestrate the functions.
* Testing AWS Lambda function and API gateways to submit data via API Gateway.
* Extensively used TestNG Listener to generate automatic responses on Test failure, Skip, and Success.
* Used Extent Report for creating Test reports.
* Used Jenkins with Maven for continuous integration.
* Used TestNG Data Provider and Apache POI for Data Driven Testing.
* Configured Jenkins as a Continuous Integration server with GitHub and Maven.
* Developed and executed SQL queries in the database to conduct Data integrity testing.
* Involvement in Testing REST service using Rest API with Rest Assured and nested JSON format.
* Have developed REST API automation script.
* Wrote and executed Test Cases for User Stories and Logged Defects for test failures using JIRA.
* Experience on the AWS platform and its dimensions of scalability including VPC, EC2, ELB, and S3.
* Familiar with CloudWatch, Elastic IPs, and managing security groups for EC2 Servers.
* Developed API for using AWS Lambda to manage the servers and run the code in the AWS.

Environment & Tools: Java, Selenium WebDriver, TestNG, Maven, Jenkins, MS Excel, MS Word, JSON, AWS, Jira, Test Link, eclipse.

**HCL America (Synchrony Financial)**

**API Test Automation Lead Engineer | Jun 2018 – Feb 2020**

* Tested Microservices implementations using RESTful web services, Spring Boot, Spring JDBC, and Cloud Config server with PCF.
* Closely work with Kafka Admin team to set up Kafka cluster setup on the QA, UAT, and Prod environment.
* Tested Spring Kafka API calls to process the messages smoothly on Kafka cluster setup.
* Implemented Kafka producer and consumer applications on the Kafka cluster.
* Designed, implemented, and tested the Spring Domain Model for the services using Core Java.
* Experienced in driving Quality Assurance and excellent technical and problem-solving, organizational, and compliance skills.
* Experience with testing Automation of API testing using Rest-Assured and Java.
* Used Postman & SOAPUI for rest service testing.
* Working on Jira Agile Boards and configuring.
* Provided an aggregated, cross-application project view of quality status and defect trends and managed and enforced consistent workflows and processes using ALM.
* Analyzed the System Specification to develop the Test Cases
* Developed and executed Test Cases to test data loads, verify application rules and workflows & data security.
* Used Java language and TestNG framework for scripting; Used Maven for building the WebDriver project.
* Configured the test suite to Jenkins to make it run on every successful deployment, which helped reduce the feedback loop time to the developers.
* Coordination and communication with the clients in analyzing and solving production issues. Experience using CICD tools such as Jenkins.
* Using Splunk to develop dashboards, forms, SPL searches, reports, and views, administration, upgrading, alert scheduling, KPIs, Visualization, and Splunk infrastructure.
* Strong communication with customers, developers Product Owners, and Stack holders.
* Created different reports using Power BI reports utilizing the desktop and the online service and scheduled refresh.
* Experienced int developing Power BI reports and dashboards from multiple data sources using data blending.
* Experience in Micro services development using spring boot and deployment in Pivotal Cloud Foundry (PCF).
* Explained to executive-level personnel how PCF is the key component for a meaningful digital transformation.
* Solutions involved logging with Splunk, custom build packs, service-to-service security, and other common issues faced when PCF is involved in a large-scale digital transformation.
* Contributed to the SDET applications architecture of several microservices on PCF.
* Hands-on experience in Splunk to create various application-based dashboards for security event monitoring.
* Extensively worked on JMeter to create Test cases to measure the performance and functionality of web services.
* Create a schedule run the scenario using JMeter and generate the necessary graphs.

Environment & Tools: Rest Assured, Jira, Java Spring tool suite, Selenium WebDriver, TestNG, Maven, Jenkins, MS Excel, MS Office, JSON, Java, HP ALM, Splunk, Pivotal Cloud Foundry, Eclipse, JMeter

**Wells Fargo (PopleNTech)**

**Selenium Test Automation Engineer | May 2017 – Apr 2018**

**Responsibilities:**

* Developed BDD (Behavior Driven Development) Test Automation framework in multiple sprints using Java and open-source technologies like Selenium Web Driver and Cucumber/ Gherkin.
* Experience assessing testing processes, creating, and implementing testing strategies and SQA strategies using Agile-Scrum methodology.
* Tested Web Services for application to ensure all the components are working as per the requirements.
* Web services testing via Tool SOAP UI Restful web services with REST assured.
* Developed and executed Test Cases to test data loads, verify application rules and workflows & data security.
* Used Appium to facilitate mobile testing by creating a mobile Driver class with the required Mobile capabilities.
* Reviewed and Designed Functional Requirement Specifications and Test Plans.
* Developing automated test scripts and frameworks for improved mobile app performance.
* Collaborated with developers and product managers to identify and resolve issues, ensuring timely delivery of high-quality mobile applications.
* Participated in use-case reviews, authored, and reviewed test planning artifacts in ALM.
* Tested on Different databases like Oracle, and SQL server using SQL Queries.
* Conducted Black box, Functional, Regression, and Smoke testing with Eclipse TestNG, Selenium WebDriver, Maven, and Java, for web-based applications.
* Used Java language and TestNG framework for scripting; Used Maven for building the WebDriver project.
* Involved in the creation of an automation framework in Selenium WebDriver using a behavior-driven approach like Cucumber using Gherkin Language.
* Configured the test suite to Jenkins to make it run on every successful deployment, which helped reduce the feedback loop time to the developers.
* Involved in pushing the automated test code into CI (Continuous Integration) and monitored the test execution in Jenkins once the code was pushed into CI.
* Extensively used Selenium (data-driven, XPath locator) and WebDriver to test the web application.
* Supported early morning/off-hours/weekend launches and monitored systems with business teams as needed.

Environment: Java, Appium, Selenium WebDriver, TestNG, Cucumber/ Gherkin, JUnit, Maven, Jenkins, Unix, MS Office, JSON, Oracle, SQL Server, Toad, HP ALM

**T-Mobile ((PopleNTech)**

**Test Engineer | Jul 2014 – Feb 2017**

* Wrote Test Cases and Test Procedures based on the Test Plan.
* Analyzed project documentation and prepared detailed Test cases.
* Analyzed, Understood, and Estimated requirements.
* Performed Positive and Negative testing.
* Used Quality Center to create Test outlines and maintained Test scripts and created, modified, and debugged the Scripts.
* Assisted in user ID clean up, Create User IDs, Reset Passwords, and Create New Projects in Quality Center/ALM.
* Created the Traceability matrix using Quality Center/ALM.
* Used Quality Center to create Test outlines, and maintained Test scripts; created, modified, and debugged the Scripts.
* Performed Data integrity testing by executing SQL statements and validated the tables in the database.
* Responsible for developing automated test cases with Selenium and custom scripting as appropriate to the test case.
* Developed and maintained custom libraries for the common automation framework using C# in Selenium.
* Performed Integration and Regression testing to check the compatibility of new functionality with the existing functionalities using Selenium.
* Designed Automation Testing Framework for web-based applications using Selenium that maintains the workflow as an end-user.
* We have developed automated testing for REST API testing.
* Prepared Test status reports for each stage and logged any unresolved issues into the Issue’s log.
* Designed and maintained Terraform configurations to automate the provisioning of AWS resources, resulting in cost savings of 20% through efficient resource management.

Environment: Rider, C#, Selenium WebDriver, Specflow, RestSharp, Java Script, Oracle, MS Visio, MS Excel, Windows, UNIX, MS Office, Jenkins, HP Quality Center.

**Thakral One**

**Jr. Technical Specialist | Jul 2013 – May 2014**

* Technical Support: Responding to user inquiries and providing technical assistance to resolve hardware and software problems. This may include troubleshooting issues related to operating systems, applications, printers, network connectivity, and peripheral devices.
* Hardware Maintenance: Installing, configuring, and upgrading computer hardware components such as memory, hard drives, graphic cards, and peripherals. Conducting periodic maintenance activities, including cleaning, hardware diagnostics, and system performance optimization.
* Software Installation and Configuration: Installing, configuring, and updating software applications, including operating systems, productivity tools, antivirus programs, and other software required by end-users. Ensuring software licenses are valid and up to date.
* User Account Management: Creating, modifying, and deleting user accounts in the organization's systems. Managing access privileges and permissions for different users based on their roles and responsibilities.
* Troubleshooting Network Issues: Assisting users with network connectivity problems, including issues with wired and wireless connections, IP configurations, DNS resolution, and VPN connectivity.
* Data Backup and Recovery: Implementing data backup strategies and performing regular backups to protect critical data. Assisting users in restoring data from backups when necessary.
* Security and Virus Protection: Implementing security measures and antivirus solutions to protect computer systems from malware, viruses, and other security threats. Educating users about best practices for safe computing and data protection.
* User Training and Support: Conducting training sessions and workshops to educate users about new technologies, software applications, and best practices. Providing user support and assistance in adopting new tools and technologies.
* Installation of Power BI to the end customer.

**Education:**

**2025 Red Hat Technical Workshop - OpenShift AI**

https://www.credly.com/badges/0555276e-551f-40a2-be79-39e1d6fe3128/linked\_in\_profile

**MIT Professional Education**

Cloud & DevOps: Continuous Transformation

https://www.credential.net/70438429-1248-44ad-8cfb-99c35e32a380

Leadership & Innovative

https://www.credential.net/49b65d58-c070-4c6c-9fad-08578897b407

Cultural Awareness for Global Business

https://www.credential.net/93f0cef3-5992-4056-b000-2c979676e2ef

**Georgia Institute of Technology**

Full Stack Flex Web Development & Test

URL: https://bootcamp.pe.gatech.edu/

Graduate: October 2019

**University of Development Alternative**

B.Sc. in Computer Science & Engineering

URL: http://uoda.edu.bd/

Graduate: February 2011

**Certification: Oracle**

Oracle Cloud Infrastructure Foundations 2020 Certified Associate

https://www.youracclaim.com/badges/4e35262c-2f41-4e50-a93a-5e16c648f81a/linked\_in

Oracle Cloud Infrastructure 2019 Cloud Operations Certified Associate

https://www.youracclaim.com/badges/4e35262c-2f41-4e50-a93a-5e16c648f81a/linked\_in

Oracle Cloud Infrastructure 2019 Certified Architect Associate

https://www.youracclaim.com/badges/2a4050f8-32bd-4bc1-96a6-dbae0ea72048/linked\_in

**Certification: Microsoft**

Microsoft SharePoint 2013