Md Zaman

Software Development Engineer in Test (SDET) | Tech Lead QA Engineer
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https://github.com/gits5213|Clearance level: Public Trust
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Tech Lead Automation Engineer & Senior Test Automation Engineer with 15+ years of experience in software and hardware testing, specializing in UI Testing, Mobile Testing, Middleware Testing, API testing (SOAP/REST) and automation within Agile DevSecOps environments. Proficient in tools like SoapUI, REST Assured, Selenium, Cypress, Playwright and JMeter for automation Testing and performance testing. Skilled in CI/CD integration using GitLab and cloud platforms (AWS, Azure). Strong background in SQL for data validation and a proven ability to deliver high-quality, secure software through effective collaboration and leadership.

Core Skills

Programing Language: Python, Java, Javascript, C#.Net
Automation API & Tools: Selenium, Gauge, CypressIO, Playwright, SpecFlow, RestSharp, CodedUI, WebDriverIO, Protractor, TestCafe, Xcode, Appium, XCUITest, NightWatch, RestAssured, Cucumber, Gherkin, SuperTest, Katalon Studio, SauceLabe, BrowserStack, LamdaTest, Frisby, PyTest, ReadyAPI, Jupiter notebook, Maven, Gradle, npm, Git, GitHub, Bitbucket, Eclipse, Intellij, SVN, Unix/Linux, CircleCI, Jenkins, AWS, S3, IAM, EC2, Amazon Connect, DynamoDB, Cloud Watch, Azure, EventHub(Event-driven microservices), Kafka, GraphQL, Axe, Pa11y, PowerBI, Tableau, SOAPUI & REST API, TMW, Tosca, Generative AI (ChatGPT), Prompt Engineering, AccelQ, Subject7m, Cyara, Cyara Botium (LLM Chatbot Testing), MCP Claude, Gemini, GPT-40, CoPilot, Programming languages, PowerShell, Azure, QA/test Automation, Performance Testing.

Manual & Process: Manual Testing & DevOps Practices, Agile-Scrum, Azure DevOps (ADO), JIRA, Xray, ALM, Rally, Zephyr, Adaptavist, SQL, Oracle, Swagger, Confluence, POSTMAN, Splunk, New Relic, SonarQube & CheckMarx, BigData, Figma, JSON, HTML, Immuta, AWS MySQL, Microsoft SQL Server, PostgreSQL, Snowflake, DBeaver, PGAdmin, JMeter & Locust (Load & Stress test), Docker, WebRTC, FIX, REST, Lighthouse, WAVE, JAWS, NVDA, PDF, ANDI, Wireshark, Ampliance, ComerceTool, Bug Tracking, Quality Assurance, SDLC, Defect Tracking Tools, Analytical Thinking, Software QA Methodologies, Scripting, Software Development Process, Client Handling, Object-oriented Programming, Performance Testing, Security Testing.

Work Experience

Tech Lead, QA Engineer (SDET)   Apr 2024 - Present
Global iTech Solutions
Lead QA and automation strategy for enterprise clients (e.g., HD Supply), collaborating with business and engineering teams to enhance end-to-end testing processes, implement quality standards, and drive innovation in test automation.
- Lead end-to-end quality engineering for clients (e.g., HD Supply), collaborating with business and engineering teams to deliver precise, high-quality products.
- Drive QA strategy by establishing automation standards, 508 compliance, Agile 3-Amigos processes, and real-time QA dashboards/metrics.
- Hands-on expertise in UI, API, Middleware, Accessibility, and Mobile Automation using CypressIO, Playwright, Selenium, Appium, TestCafe, ReadyAPI, GraphQL, and AI-powered testing (Claude Code, ChatGPT, CodeGPT, Copilot, Gemini).
- Designed and maintained automation frameworks with CI/CD pipelines across Azure DevOps, GitHub Actions, Jenkins, GitLab, and AWS (S3, DynamoDB, CloudWatch, Amazon Connect, Genesys).

- Delivered performance, security, and penetration testing, optimizing system performance and migrating critical endpoints to GraphQL.
- Conducted proof of concepts across low-code test platforms (Katalon, AccelQ, Tosca, Subject7), scaling automation efficiency.
- Mentored teams in automation best practices, cross-functional collaboration, and emerging AI-driven testing methodologies.

Tech Lead. QA Engineer (SDET)   Nov 2022 - Apr 2024
American Airlines (via Insight)

Supported internal portal for merger management microservices across M&A, capital markets, trading, and liquidity/payment domains.
- Led QA efforts for Payment Modernization program, testing payment authorization, capture, refund, cancel, 3DS, and reconciliation via Adyen gateway with PostgreSQL backend.
- Defined and implemented manual, automation, accessibility, and performance testing strategies, improving test maturity across teams.
- Migrated frameworks from NightwatchJS/Protractor → Cypress → Playwright; transitioned REST API endpoints to GraphQL.
- Designed and built cross-platform test automation frameworks (UI, API, mobile, microservices) using Selenium, Playwright, Cypress, Cucumber, Python, Java, C#, JS, SoapUI, ReadyAPI, Postman.
- Set up CI/CD pipelines with AWS, ADO, Jenkins, SonarQube; leveraged Docker, BrowserStack, SauceLabs, LamdaTest for scalable test execution.
- Mentored and coached junior engineers on OOP principles, automation best practices, and tools (Selenium, Cypress, AccelQ, WebDriverIO, Python, C#).
- Drove security & accessibility testing (SonarQube, AXE, WAVE, JAWS, NVDA, PA11Y) and performance testing with JMeter.
- Validated ETL/data pipelines using Python & PySpark ensuring data integrity in transformations/migrations.

Tech Lead QE   Oct 2018 - Nov 2022
Raytheon Technologies (RTX)

Supported digital accelerators across aviation, defense, and space programs, delivering intelligent QA solutions for enterprise applications.
- Led QA initiatives within Enterprise Digital Accelerators (EDX), establishing manual, automation, accessibility, and performance testing best practices.
- Drove migration of automation frameworks (NightwatchJS → Protractor → CypressIO → Playwright), improving efficiency and reliability.
- Designed and implemented boilerplate architectures for UI, API, and Middleware (event-driven microservices) testing frameworks using Java, Python, C#, JavaScript, and cloud services (AWS, ADO, Jenkins, SauceLabs, BrowserStack, LamdaTest).
- Built automation frameworks from scratch for multiple mission-critical projects (Sensitech STM, Reliability Prism, FPO, Rotor Design System, XetaCloud, Digital Twin, SAP Migration).
- Performed ETL and database validation with Python & PySpark to ensure data integrity; conducted accessibility 508 compliance testing using AXE, Pa11y, JAWS, NVDA.
- Delivered QA Metrics Dashboards and standardized processes across EDX to streamline reporting and governance.
- Mentored engineers in OOP, automation frameworks, and containerization (Docker), driving knowledge sharing and consistency.
- Hands-on contributor in test automation, CI/CD integration, version control (GitHub, Bitbucket, GitLab, ADO, SVN), and Unix/Linux scripting.

Lead Software Engineer in Test   May 2018 - Oct 2018

Bank of America Merrill Lynch (via Mitchell Martin)

Supported internal portal merger management microservice application for equity, lending, trading, risk management, and payments services.

- Partnered with business, engineering, and operations teams to improve end-to-end testing processes, tools, and methodologies.
- Designed manual, automation, accessibility, and performance testing strategies leveraging industry best practices.
- Led test automation and CI/CD integration using GitHub, Bitbucket, GitLab, ADO, AWS, Jenkins, SonarQube, and SauceLabs.
- Hands-on with Unix/Linux commands and cloud-based test environments.
- Enhanced agile 3 Amigos process and documentation, streamlining collaboration.
- Built automation from scratch for Web, iOS, and Android microservices using Cucumber, Java, Selenium, XCUITest, Android Studio, TestNG, Maven, AXE, SoapUI, GraphQL, and Allure Reports.
- Conducted ETL and database validation with Python & PySpark ensuring data accuracy and integrity.
- Delivered manual and automated accessibility testing on Web/PDF using ANDI, JAWS, NVDA, AXE, WAVE, and PA11Y.
- Automated internal web apps with Cypress (POM, data-driven) integrated into CircleCI, Docker, and AWS (S3).

Sr. DevOps/Automation Engineer   Oct 2017 - Apr 2018

Hearst Magazines

Supported digital strategy for 30+ magazine brand websites across fashion, beauty, lifestyle, automotive, food, and family domains.

- Partnered with business, engineering, and operations teams to refine end-to-end testing processes, tools, and methodologies.
- Designed manual, automation, accessibility, and performance testing strategies using industry best practices.
- Maintained source control and daily automation tasks with GitHub, Bitbucket, GitLab, ADO, SVN, and Unix/Linux.
- Optimized existing NightwatchJS & keyword-driven concepts.
- Automated API (REST & GraphQL) testing using RestAssured & SuperTest, integrated with AWS, ADO, Jenkins, SonarQube CI/CD pipelines.
- Conducted ETL and database validation with Python & PySpark to ensure accuracy and reliability in data transformations.
- Delivered manual and automated accessibility testing on Web/PDF using ANDI, JAWS, NVDA, AXE, WAVE, and PA11Y.
- Utilized Docker for consistent test environments, dependency management, and CI/CD efficiency.
- Conducted manual API testing with Postman, Swagger, and ReadyAPI before automating workflows.

Lead, Software Engineer in Test   Mar 2017 - Oct 2017

JCDecaux

Supported Billing Management (BillIT) and Posting Management (PostIT) microservice applications.

- Collaborated with business, engineering, and operations teams to optimize end-to-end testing processes and methodologies.
- Developed manual, automation, accessibility, and performance testing strategies aligned with industry standards.
- Managed version control and daily automation tasks using GitHub, Bitbucket, GitLab, ADO, SVN, and Unix/Linux.

- Built automation frameworks from scratch using NightwatchJS & Protractor, integrated with CI/CD pipelines.
- Automated RESTful & GraphQL API endpoints leveraging RestAssured & SuperTest; integrated with AWS, ADO, Jenkins, and SonarQube.
- Delivered manual and automated accessibility testing for Web/PDF with JAWS, NVDA, ANDI, AXE, WAVE, and PA11Y.
- Implemented Docker for reliable test environments, dependency management, and CI/CD efficiency.
- Conducted API testing with Postman, Swagger, and ReadyAPI before automating workflows.

Lead, Software Engineer in Test   Jul 2016 - Mar 2017
Cloud9Technologies
Contributed to Cloud9 trading platform (desktop & web) microservice applications.
- Worked closely with the business groups, engineering organizations, software development teams, and operations teams to continually evaluate and improve the end-to-end software development in test processes, tools, and testing methodology used in a project.
- Collaborated with business, engineering, and operations teams to refine end-to-end testing processes, tools, and methodologies.
- Designed manual, automation, accessibility, and performance testing strategies using industry best practices.
- Maintained daily automation workflows and source control using GitHub, Bitbucket, GitLab, ADO, SVN, and Unix/Linux.
- Automated desktop trading app from scratch using C#.NET & NUnit; integrated with CI/CD pipelines.
- Automated web applications (user management & support) using NightwatchJS, Protractor, SuperTest, with AWS, ADO, Jenkins, SonarQube CI/CD integration.
- Delivered manual & automated accessibility testing for web/PDF using ANDI, JAWS, NVDA, AXE, WAVE, and PA11Y.
- Utilized Docker for consistent test environments, dependency management, and CI/CD optimization.
- Conducted API testing with Postman, Swagger, ReadyAPI, automated with C#.NET (NUnit) & SuperTest.

Lead Automation Engineer ASE6   Nov 2015 - Jul 2016
Wells Fargo (via TEKsystems)
Supported Customer Information View (CIV) and Contact Center microservice applications.
- Partnered with business, engineering, and operations teams to improve end-to-end testing processes, tools, and methodologies.
- Created manual, automation, accessibility, and performance testing strategies leveraging industry best practices.
- Maintained source control and automation workflows with ADO, Jenkins, Git, and cloud-based integrations.
- Enhanced Selenium, Cucumber, Java, TestNG framework by applying KISS/DRY coding standards and QA best practices.
- Automated contact center master call flow with Empirix & Cyara across multiple IDEs (VS Code, PyCharm, Eclipse, IntelliJ).
- Developed a new API automation framework using RestAssured (from scratch) and integrated with AWS, ADO, Jenkins, SonarQube, AccelQ, and SauceLabs.
- Conducted manual and automated RESTful API testing with Postman, Swagger, ReadyAPI, SoapUI, and SuperTest.
- Performed and automated accessibility testing on Web/PDF using ANDI, JAWS, NVDA, AXE, WAVE, and PA11Y.

SDET - ITS3   Jan 2015 - Nov 2015
DSHS Children administration

Supported FamLink and other CATS applications, the state's SACWIS case management system used by public and private caseworkers to maintain official child and family service records.

- Collaborated with business, engineering, and operations teams to improve testing processes, tools, and methodologies.
- Created manual, automation, accessibility, and performance testing strategies aligned with industry standards.
- Performed version control and automation tasks using GitHub, Bitbucket, GitLab, ADO, SVN, and Unix/Linux.
- Automated end-to-end case management workflows for Web and Desktop apps using Java, C#.NET, Selenium, Cucumber, CodedUI, XCUITest, Android Studio, JMeter, and SQL.
- Integrated automation with CI/CD pipelines and cloud environments via ADO, Jenkins, and SonarQube.
- Conducted API testing with Postman, Swagger, and ReadyAPI; automated with C# NUnit for maintainable coverage.
- Performed manual and automated accessibility testing for Web/PDF using JAWS, NVDA, ANDI, AXE, WAVE, and PA11Y.

Sr. Test Engineer   Jun 2014 - Dec 2014
AT&T (via Pyramid Consulting & Tech Mahindra)
Supported Sales, Service & Support web domain, driving improvements in test processes and quality assurance practices.

- Collaborated with business, engineering, and operations teams to optimize testing methodology, tools, and processes.
- Designed manual, automation, accessibility, and performance testing strategies aligned with industry best practices.
- Maintained source control and daily automation tasks using Git, GitHub, and Unix/Linux.
- Built a performance testing framework using Keynote & JMeter, monitored with Dynatrace.
- Designed, developed, and automated test cases with Java, Cucumber, Selenium (API), TestNG, Maven across multiple IDEs.
- Performed manual and automated accessibility testing on Web/PDF with ANDI, JAWS, NVDA, AXE, WAVE, and PA11Y.
- Automated RESTful API testing with Java RestAssured after manual validation via Postman, Swagger, and ReadyAPI.
- Delivered detailed test design, estimations, and peer code reviews to improve test coverage and reliability.

IT Specialist/BSSO   Feb 2008 - Jun 2011
BRAC Bank
I worked with financial domains and web-based applications. I was responsible for Manual and Automation tests both but I especially, Designed, Developed and Maintain the automation code. Analyzed the software requirements, wrote functional test cases, created test data, and performed functional tests, smoke tests, accessibility test, regression tests, and UAT tests to the functionality of the application and modules. I developed SQL queries to perform backend testing of the database. Building test automation suites for the application using Selenium (API), Hands-on SDLC (System Development Life Cycle) experiences

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- I developed SQL queries to perform backend testing of the database.
- Building test automation suites for the application using Selenium (API), Hands-on SDLC (System Development Life Cycle) experience

- Technology being used I have worked in waterfall software development methodologies (waterfall) - Application development, and implementation.
- Working with Continuous Regression Testing methodology - Selenium (API) Development, Eclipse - Java/JavaScript Development - Junit (Java Framework) - data-driven framework development - Integration Testing, smoke test, Functional test, Regression test- UI Test Automation - Manual Test - Application Deployment, AXE, Pa11y, Lighthouse, Screen Readers, Web Accessibility Evaluation Tools.
- Performed manual accessibility testing on web and PDF files using assistive technologies leveraging JAWS and NVDA, along with tools leveraging ANDI, AXE, WAVE, and PA11Y.
- Automated accessibility testing using AXE and PA11Y to streamline and enhance the testing process for web applications and documents.
- Hands-on creating pull requests leveraging Git, GitHub, and Unix/Linux basic commands to accomplish daily automation tasks.

Volunteer   Sep 2019 - Present

Auxiliary NYPD (New York City Police Department)

Education

- National University of Bangladesh (Govt. Ananda Mohan College)
  Bachelor's Chemistry

- National University of Bangladesh (Govt. Titumir College)
  Master's Chemistry

Awards

Spot Award   Mar 2020

- Raytheon Technologies
  YOU'RE BEING RECOGNIZED FOR: INNOVATION

Certificates

- AWS solution architect associate
- ASTQB-ISTQB®
  - o Advanced Test Automation Engineer (CTAL-TAE)
  - o Advanced Test Manager (CTAL-TM)
  - o AI Testing (CT-AI)
- Professional Scrum Master I
  - o Scrum.org
- Scaled Agile, Inc.
  - o Certified SAFe® 6 Practitioner
- CompTIA Security+
- DHS Trusted Tester Program certification
- Test Architect for Tricentis Tosca (AS1, API Test, TDS1)
- Certified ACCELQ Automation Engineer