Abdullah Al Rafi

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Objective

Computer Science and Engineering graduate from East West University with strong expertise as a Software QA Analyst. Skilled in software testing, automation, and quality assurance for Blockchain, Machine Learning, and Computer Vision applications. Proficient in data analysis and SQL for validating data integrity and generating actionable insights to support testing processes. Proven ability to design and execute detailed test cases with precision, effectively collaborating with cross-functional teams to ensure high-quality software delivery and operational excellence.

Experience

Software Data QA Engineer   *Jan 2025 – Apr 2025*
Intern, W3 Engineers Ltd.

- Developed and maintained 1000+ detailed test cases and a regression suite with 3000+ scenarios, achieving 98% test coverage across critical application features.
- Performed complex queries in Elasticsearch via Kibana console and validated data with PostgreSQL to generate BI dashboards on Apache Superset.
- Used Python for data analysis, addressed recurring system issues using Jira & Loop, and regularly executed API requests via Postman to monitor API health and validate data accuracy across services.

Research & Teaching Assistant   *Jan 2024 – Jan 2025*
Department of Computer Science & Engineering, East West University.

- Led and mentored lab sessions for Data Science Statistics and Structured Programming, providing hands-on instruction to 100+ students while implementing effective teaching methodologies.
- Supervised 9+ research teams, facilitating successful Q1 journal publications and driving 20% increase in department research performance through strategic project management.

Education

East West University   *Jan 2020 – Jan 2024*
B.Sc. in Computer Science and Engineering

- GPA: 3.71/4.00
- Major : Software Engineering

Projects-Quality Assurance

Selenium Automation Framework for Healthcare Application
Java, Selenium, TestNG, Maven

- Automated functional and regression testing for healthcare application features.
- Created 35+ reusable test scripts for authentication, patient UI, and appointments.
- Validated 120+ positive and negative test cases with detailed reporting.

RESTful API Testing Framework for E-commerce Booking Platform
Java, REST Assured, TestNG, Maven

- Developed a comprehensive API testing framework for the Restful-Booker platform using industry best practices and design patterns.
- Implemented 25+ automated test scripts covering authentication, CRUD booking operations, and data validation with 98.5% test coverage.
- Integrated detailed reporting system with Allure and achieved 60% reduction in testing time through automated test execution.

Projects-Development

Decentralized Land Management Application using Blockchain ○ ↗
Web3, React.js, Blockchain, Truffle, Ganache, Ethereum
- Developed a Web3 & Node.js-based application to modernize the land management domain
- Built using Node.js and Solidity, deployed with Truffle & Ganache
- Tested on the Ethereum test net via MetaMask for secure transactions and decentralized functionality

Healthcare Consultation Management Application with Live chat ○ ↗
Python with Django framework, PostgreSQL, MVT pattern
- Created a web-based application for disease detection by matching symptoms in the database, supporting appointment booking and doctor consultations
- Utilized Python with the Django framework and PostgreSQL, handling 500+ simulated consultations efficiently

Dry fruit image classification using stacking ensemble model ○ ↗
Python, TensorFlow, Deep Learning, OpenCV, DataSet(11520 Images)
- Developed a stacking ensemble model combining MobileNetV1, MobileNetV2, SqueezeNet, and ShuffleNetV2 architectures, achieving 98.32% test accuracy on 11,520 dry fruit images across 12 classes.
- Implemented parallel execution of base CNN models with optimized runtime of 43.47 ms per sample, enabling real-time dry fruit classification.

Publications

Enhancing land management policy in Bangladesh: A blockchain-based framework for transparent and efficient land management   Dec 2024
Land Use Policy (Q1, IF:6) ↗

Dry fruit image classification using stacking ensemble model   Nov 2024
Journal of Agriculture and Food Research (Q1, IF:4.8) ↗

BDMANGO: An image dataset for identifying the variety of mango based on the mango leaves   Dec 2024
Data In Brief (Q2, IF:1.00) ↗

Technical Skills

Programming Languages: Python, Java (OOP), JavaScript, C/C++
Databases: MySQL, PostgreSQL, MongoDB, Elasticsearch
Testing & Automation Tools: Selenium, TestNG, JUnit, Maven, JMeter, LoadRunner, Postman
Software Testing Concepts: SDLC, STLC, Agile Methodologies, Test Case Development, Test Planning
Defect Tracking & Version Control: Jira, Notion, Git
CI/CD Tools: Jenkins, GitLab CI
Data Analysis & Visualization: Jupyter Notebook, Apache Superset, Excel (VLOOKUP)

Certifications

SQL (Advanced) Certification — HackerRank   May 2025
Credential ID: 5905cf970f0a Show credential ↗

SQL (Intermediate) Certification — HackerRank   May 2025
Credential ID: 1268f4f884cf Show credential ↗

Awards and Scholarships

1. First Runners Up, Project Showcasing, CSE Festival 2024, East West University : Demonstrated a blockchain-based application, competing among 28 teams.
2. Medha Lalon Scholarship, East West University : A merit-based scholarship of 45,000 BDT annually.