Muzamil Ahmed
Senior Software Test Engineer at OURA
AI-Driven Test Automation and Quality Engineering
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Professional Summary

Dedicated Senior Software Test Engineer with 15+ years of experience in software testing and quality assurance. Specialising in test automation frameworks, CI/CD pipelines, and cloud-based test infrastructure for mobile (Android, iOS), backend, and firmware systems. Currently leading work on an AI-powered synthetic test-data and replay platform, and running the internal training that has brought AI-assisted testing into everyday use across engineering teams. Proven expertise in Python, Pytest, and Appium, with hands-on experience building AWS-powered data pipelines for test reporting.

Skills

AI & Test Tooling: LLM-integrated test tooling, AI-assisted CI triage, AI agent authoring, Internal AI training
Programming & Test Automation: Python, Pytest, Appium, Custom framework design
Testing Platforms: Android, iOS, Backend services, Firmware, Wearables
CI/CD: GitHub Actions, Docker, Test infrastructure scaling
Cloud & Data: AWS (S3, Glue, Athena, QuickSight), Data pipelines, Reporting dashboards
Testing Types: Test strategy, Integration, API, Smoke, E2E, Regression, Exploratory
Collaboration & Mentoring: Cross-functional teams, Initiative ownership, Mentoring, Design discussions

Professional Experience

OURA July 2021 – Present
Senior Software Test Engineer

- Lead the development of an AI-powered synthetic test-data and replay platform that generates realistic user data on demand and runs automated validation across mobile, backend, and firmware, replacing test-data preparation that was previously done by hand before every release.
- Build an AI-powered CI failure-analysis tool that categorises test failures using large language models, writes root-cause summaries, and files them to the right tracking system, which has cut down duplicate bug tickets and manual triage.
- Author reusable AI-agent tooling so that engineers can run test-data and device-testing workflows from natural-language requests, without having to learn the framework internals.
- Act as an AI Champion for the organisation by running recurring training sessions, example workflows, and internal materials on using AI tools and agents for testing, reporting, and everyday engineering tasks.
- Drive adoption of spec-driven development, using AI tooling that requires a written spec before code changes.
- Design and maintain automated test frameworks in Python (Pytest, Appium) for Android and iOS, covering integration, regression, end-to-end, smoke, and exploratory testing across mobile applications, backend services, and core health algorithms.

- Build and manage CI/CD pipelines (GitHub Actions, Docker) to improve the reliability and repeatability of automated tests, and enhance device and simulator infrastructure to scale automation and reduce build and test times.
- Implement and operate a cloud-based data pipeline for test results using AWS services (S3, Glue, Athena, QuickSight) to enable long-term storage, trend analysis, and cross-repository reporting, and build dashboards that give engineers visibility into CI health and failure patterns.
- Investigate and document issues spanning mobile apps, device firmware, and cloud services, and collaborate with relevant teams to drive them to resolution.

Pelion November 2020 – July 2021
Senior Test Development Engineer

- Developed comprehensive test plans that expanded test coverage for IoT-connected device services.
- Contributed to the design of a shared Pytest utility library used for system test automation.
- Optimised test automation scripts using Python and Pytest for improved execution efficiency.
- Collaborated with cross-functional teams to review system requirements and test plans.

ARM April 2017 – November 2020
Test Development Engineer

- Performed integration, smoke, acceptance, and end-to-end testing for IoT management platforms and device connectivity.
- Reviewed system requirements, feature requests, test plans, and test code.
- Developed and managed test plans and automation scripts using Python and Pytest.
- Managed regression testing and issue tracking to minimise defect leakage.

ARM March 2016 – April 2017
Graduate Engineer

- Conducted integration, smoke, and end-to-end system testing; created test plans and automation scripts using Python and in-house tools.
- Automated regression tests and managed issue reporting.

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i2c Inc April 2009 – August 2012
Senior Software QA Engineer

- Created, executed, and maintained test documents and scripts; performed detailed feature and regression testing.
- Reported, tracked, and re-verified defects; contributed to test strategy reviews.

Education

- **University of Oulu, Finland 2012 – 2014**
  Master's Degree in Computer Software Engineering
- **University of the Punjab, Lahore, Pakistan 2005 – 2009**
  Bachelor of Science (Hons) in Information Technology

Certifications

- **AI For Everyone** – Coursera
  Issued: August 2022
  Credential ID: 5JW7QZLUCSPM
- **Build Local Development Environments Using Docker Containers** – Coursera
  Issued: January 2022
  Credential ID: WNRNTBLZWXEF

Publications

- Tosun, A., Ahmed, M., Turhan, B., & Juristo, N. (2018). On the effectiveness of unit tests in test-driven development. *Proceedings of the International Conference on Software and System Process*, 113-122.
- Hosio, S., Ferreira, D., Goncalves, J., Van Berkel, N., Luo, C., Ahmed, M., et al. (2016). Monetary assessment of battery life on smartphones. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 1869-1880.
- Anagnostopoulos, T., Ferreira, D., Samodelkin, A., Ahmed, M., & Kostakos, V. (2016). Cyclist-aware traffic lights through distributed smartphone sensing. *Pervasive and Mobile Computing*, 31, 22-36.