Samrat Ghimire

QA Automation Engineer

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Professional Summary

QA Automation Engineer with 2.5+ years of experience testing web, mobile, and RFID hardware-integrated products. Built a **Playwright (Python)** end-to-end framework from scratch that cut regression time by 40%. Skilled in **REST API testing**, **JMeter load testing** (up to 10,000 concurrent users), SQL data validation, and risk-based test design in Agile teams.

Experience

QA Engineer | Katmatic Solution Pvt. Ltd. April 2024 – Present

- Built the team's UI and end-to-end automation framework from scratch using **Playwright** and **Python**, replacing repetitive manual regression scripts and cutting regression time by 40%.
- Designed and ran **Apache JMeter** load tests simulating up to 10,000 concurrent users, uncovering slow-loading pages and server bottlenecks that were fixed before release.
- Owned QA across 3 core software products, partnering with developers to catch critical defects early and reduce post-release bugs.
- Tested **REST APIs** with **Postman**, validating request/response payloads, HTTP status codes, and error handling between frontend and backend.
- Applied **risk-based testing** to write functional, integration, and sanity test cases, prioritising the most business-critical workflows.
- Wrote **SQL** queries to verify that user actions correctly updated the database with no data loss.
- Maintained consistent **Docker** test environments and managed the full bug lifecycle in **Redmine**, from first report to developer fix and retest.

Major Industry Projects

School ERP Management System | *Web Admin Portal + Parent and Teacher Mobile Apps*

- Led end-to-end testing across the admin web portal and two mobile apps (parents, teachers).
- Validated core modules: student/guardian onboarding, record updates, billing, inventory, marksheet and result generation, and transportation.
- Ran JMeter load tests simulating peak enrollment traffic, helping the team fix server issues before launch.

RFID-Based Smart Attendance System | *Hardware + Software Integration*

- Tested RFID scanner-to-software integration and reported bugs in how hardware data synced with the backend API.
- Verified accurate attendance recording and timely automated SMS notifications to parents.

RFID Smart Inventory Management System | *Warehouse Automation*

- Tested an RFID tracking system built to replace manual barcode scanning in warehouse inventory.
- Used SQL to confirm digital item records and locations exactly matched physical hardware scans.

Skills

- **Test Automation & QA:** Playwright, E2E Testing, Regression Testing, Risk-Based Testing, Mobile App Testing, Hardware/Software Integration Testing
- **API & Performance:** REST API Testing, Postman, Apache JMeter, Load Testing
- **Languages & Data:** Python, SQL (MySQL), JavaScript, HTML, CSS
- **Tools & Process:** Docker, Git, Redmine, Agile/Scrum, SDLC/STLC, Defect Lifecycle Management

Education & Certifications

Bachelor in Computer Application | [SchEMS] Aug 2018 – May 2023

- MySQL Certification | Coding Technology
- QA Training Certification | Mindrisers Institute of Technology