NICHOLAS BIIY BWALLEY

"I ensure software quality through robust test strategies, automation frameworks, and continuous validation across the SDLC"

Software Quality Assurance Engineer | CI CD Testing | Enterprise Systems | Quality Assurance | Test Automation.

Nairobi, Kenya | +254 714 394 332 | nickbiiybwalley@gmail.com

[LinkedIn](#), [GitHub](#)

PROFESSIONAL SUMMARY

I am a Software Quality Assurance Engineer with over six years of experience across software development, quality assurance, and test automation in enterprise and production environments. I specialize in defining test strategies, implementing automated testing frameworks, and ensuring high quality software delivery through rigorous functional, regression, and integration testing. I have strong programming and automation skills and work closely with developers, QA analysts, and business stakeholders to validate requirements, identify defects early, and improve overall software reliability. I am experienced in Agile delivery environments and CI CD pipelines, with a strong focus on test coverage, defect prevention, and continuous improvement.

Let's [connect](#) and explore how intelligent automation can reshape the way your business operates.

CORE TECHNICAL COMPETENCIES

Test Strategy and Planning

Test Strategy Definition, Requirements Decomposition, Test Scenario Design, Test Data Preparation, Test Case Management, QA Estimation and Scheduling

Test Automation and Frameworks

Automated Test Framework Design, Selenium, Playwright, Cypress, API Testing Automation, Unit and Integration Test Support, Black Box and White Box Testing

Defect Management and Reporting

Defect Tracking, Root Cause Analysis, Regression Testing, Test Execution Reporting, Release Readiness Validation

CI CD and DevOps Integration

Test Automation in CI CD Pipelines, GitHub Actions, Jenkins, Docker Based Test Environments, Multi Branch Testing

Code Quality and Coverage

Code Coverage Analysis, Test Coverage Optimization, Static Analysis Awareness, Peer Code Reviews

Test Environments and Tooling

Test Environment Setup and Maintenance, Test Data Management, QA Tool Evaluation and Recommendation

Methodologies and Collaboration

Agile Scrum, Cross Functional Collaboration, QA Documentation, Risk Based Testing

Others: Touch Typist with speeds averaging **120 Words Per Minute (WPM)**

PROFESSIONAL EXPERIENCE

Full Stack Software Engineer & AI Automations Engineer | Remote | Mar 2020 – Present

- Delivered 15+ AI-powered web applications for e-commerce, fintech, and real-estate clients, automating workflows, cutting operational costs by up to 40%, and successfully completing over 170 projects. Check it out [here](#).
- Built production-grade AI RAG chatbots with n8n and OpenAI, leveraging Pinecone for semantic search cutting research time by 90% and boosting customer engagement by 40%.
- Developed 2 functional solo SaaS Application [LinguaFlash](#) (lightweight alternative to NotebookLM) and [BlogFlow](#) (AI-powered writing assistant for technical creators), both generating consistent MRR after validation and launch.
- Hired to improve a company's organic traffic by optimizing code for Search Engine Optimization (SEO), reducing Mean Time to Recovery (MTTR) by 45%, and increasing overall web traffic by 65%.

Software Engineer Intern | Turbo G & K Networks Ltd, Nairobi | Jan 2024 – Jun 2024

- Revamped website into a React SPA (MERN Stack), cutting load time by 55% and increasing traffic by 40%.
- Migrated from monolith to microservices architecture, reducing MTTR from 30 mins to under 10 mins.
- Implemented CI/CD pipelines with Docker & GitHub Actions, achieving zero-downtime deployments.

Cybersecurity Analyst Intern | Senselearner Technologies Pvt., Remote | Sep 2023 – Dec 2023

- **Conducted end-to-end security assessments** including network scanning, vulnerability analysis, and penetration testing of web applications, leveraging tools such as OWASP, Metasploitable and Hacksplaining to identify and mitigate **95% of critical threats**, enhance system resilience by **40%**, and deliver comprehensive remediation reports with actionable insights.

EDUCATION

Sustainable Urban Planning and Development (Challenge Driven Education (CDE) project), Exchange Program
KTH Royal Institute of Technology, Stockholm, Sweden | Aug 2024 – Jan 2025

BSc Business Information Technology (First Class Honours, GPA 3.8/4.0)
Strathmore University, Nairobi, Kenya | Sep 2021 – Jun 2024

Diploma in Business Information Technology (Merit)
Strathmore University, Nairobi, Kenya | May 2019 – Sep 2021

PROJECT HIGHLIGHTS

- Led an AI-driven mobility optimization project in Viksjö, Sweden, using advanced machine learning algorithms to generate insights and inform municipal transport efficiency modeling.
- Built two profitable B2C SaaS products, [LinguaFlash](#) and [BlogFlow](#), both generated consistent Monthly Recurring Revenue (MRR) and sold them for a fortune.
- Published a research article called "AI-Powered Customer Churn Predictor" that uses Machine Learning in predicting the probability that a customer in the bank will default and leave the banking services or not based on his usage metrics. Check it out [here](#)

CERTIFICATIONS & ACHIEVEMENTS

- Published Research: AI-Powered Customer Churn Predictor, ReadyTensor (Mar 2025)
- Dean's List Award Academic Year (2021–2022 & 2022-2023), Strathmore University.

- Certified Transcriptionist (120WPM on average)
- Weightlifter 3rd Place Award, Strathmore Sports Day (Aug 2023)

LANGUAGES

- English (C2 – Native; Both Spoken & Written)

- Swahili (C2 – Native; Both Spoken & Written)

- French (C1 – Working Proficiency; Both Spoken & Written)

HOBBIES

- Fitness Coach

- Professional Swimmer

- Table Tennis

- Pool Games & Bowling

- Speed Cuber & Card Magician.

PROFESSIONAL ATTRIBUTES

- Delivers and owns quality outcomes across SDLC

- Strong analytical and problem-solving skills

- High attention to detail and risk awareness

- Collaborative and communicative team player

- Continuous improvement of mindset focused on quality and reliability