

NICHOLAS BIIY BWALLEY

“Building intelligent automation systems that scale with people and performance.”

AI Automations & SaaS Consultant | Full-Stack Software Engineer | AI Generalist.

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

PROFESSIONAL SUMMARY

I'm an AI Automations Consultant with a strong foundation as a Full-Stack Software Engineer, helping businesses design and deploy scalable, intelligent, and compliant systems. Over the past 6 years, I've built end-to-end automation workflows, AI-powered chatbots, and SaaS platforms that streamline operations, enhance customer engagement, and scale effortlessly to millions of users. I specialize in transforming complex business processes into self-operating AI ecosystems using tools like n8n, OpenAI Agents Builder, CrewAI, and the LangChain framework. By combining deep technical expertise in software architecture, cloud infrastructure, and AI research with adherence to global standards such as SOC 2 and GDPR, I deliver automation solutions that are not only robust and secure but also drive measurable business growth and long-term scalability.

CORE TECHNICAL COMPETENCIES

AI Tools & Automations: OpenAI, Claude, LLaMA, LangChain, RAG, MCP, n8n, Flowise, CrewAI, LangGraph, LangSmith, HuggingFace, Prompt Engineering, Cursor, Claude Code, Claude Desktop, Lovable, Windsurf, Replit, Google Gemini CLI, Google AI Studio.

Software Engineering: Python (FastAPI, Flask), Node.js, Next.js, React, Express.js, REST APIs, OAuth 2.0, Docker, Vercel, Render, AWS (EC2, S3, Bedrock), CI/CD (GitHub Actions), Kubernetes, Apache Kafka.

Databases: PostgreSQL, Supabase, MongoDB, MySQL, Pinecone, ChromaDB, Redis Streams.

Architecture & Scalability: Cloud-Native SaaS Systems, High Availability (HA) Design, Vector Databases, API Integration, Event-Driven Systems, Serverless Functions.

Compliance & Security: SOC 2, GDPR, OWASP, Penetration Testing, Secure API Design.

PROFESSIONAL EXPERIENCE

Full Stack Software Engineer & AI Automations | 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

Exchange Program – Sustainable Urban Planning and Development (Challenge Driven Education (CDE) project)

KTH Royal Institute of Technology, Stockholm, Sweden | Aug 2024 – Jan 2025

BSc Business Information Technology (First Class Honors, 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, Stockholm, using advanced machine learning algorithms to generate insights and inform municipal transport efficiency modeling.
- Built two profitable B2C SaaS products, LinguaFlash and BlogFlow, both generating consistent

Monthly Recurring Revenue (MRR) and currently exploring new SaaS concepts focused on solving real-world automation challenges.

- 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.
- 3rd Place Award, Strathmore Sports Day – Weightlifting (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, Swimming, Table Tennis, Pool Games, Bowling, Speed Cuber and Card Magician.