

NICHOLAS BIIY BWALLEY

Forward-Deployed Applied AI Engineer (Delivery + Product + Systems).

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

PROFESSIONAL SUMMARY

Applied AI engineer specializing in customer-embedded execution, requirements translation, and end-to-end systems delivery. Owns ambiguous problem spaces from success metric definition to production deployment, integrating human feedback, model-adjacent evaluations, and data pipelines into measurable business outcomes. Operates at the boundary of product, research, and engineering to convert real-world signals into robust, production behavior.

CORE TECHNICAL COMPETENCIES

Task/Evaluation Design · Data Workflows · AI Integrations · RAG Systems · Automation Pipelines · Product Requirement Translation · Customer Delivery · Success Metric Definition · Production Deployment · Feedback Loops · SaaS Delivery · CI/CD · Cloud Services · Vector DBs · Supabase · MongoDB · Node.js · React · Next.js · MRR Validation · Iterative Shipping · Prompt Engineering · Off-the-Shelf Models (OpenAI, Claude, Google AI).

PROFESSIONAL EXPERIENCE

Forward-Deployed Full-Stack + Applied AI Engineer (Independent)

Remote • Mar 2020 – Present

- Cut operational workload by 40% and research time by 90% by deploying AI RAG chatbots & n8n-based automation pipelines that integrated semantic retrieval (Pinecone) with business systems, owning ingestion → eval → integration → deployment → iteration.
- Drove customer workflow changes and adoption by embedding directly with SMEs to define success criteria, align task formats, and translate business intent into executable pipelines.
- Increased user engagement by 40% via production RAG assistants and structured evaluation loops that reduced friction and improved answer relevance.

- Boosted SEO traffic by 65% and reduced MTTR by 45% by defining problems, scoping requirements, instrumenting metrics, and shipping iterative improvements to web infrastructure.
- Delivered 170+ AI-powered web systems and agents across e-commerce, fintech, and real-estate verticals, consistently shipping under ambiguous specifications with rapid iteration cycles.
- Owned deployment & delivery pipelines (Docker, Vercel, GitHub Actions) enabling zero-downtime releases and automated monitoring.
- Interfaced directly with customers to define objectives, negotiate constraints, refine acceptance criteria, and validate outcomes operating as embedded technical owner rather than contractor.

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 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

- Built and shipped two B2C SaaS products (LinguaFlash & BlogFlow), validated user demand, iterated on feedback loops, and generated recurring MRR pre-acquisition.
- Demonstrated product sense: balancing fidelity vs. speed, converting feedback into scoped changes, and prioritizing features around measurable usage rather than requests.
- Achieved successful exits, confirming end-to-end product ownership from ideation → validation → build → adoption → revenue → transition.

RESEARCH-ADJACENT PROJECTS

- Led an AI-driven transport optimization initiative in Stockholm to model real-world mobility efficiencies, translating domain constraints into structured evaluation objectives.
- Published “AI-Powered Customer Churn Predictor” demonstrating applied ML framing around predictive objectives and evaluation criteria.

CERTIFICATIONS & ACHIEVEMENTS

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

LANGUAGES

- English (C2 – Native; Both Spoken & Written)
- Swahili (C2 – Native; Both Spoken & Written)
- French (C1 – Working Proficiency; Both Spoken & Written)