

ALVIN KIPNG'ENO LANGAT
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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

PROFESSIONAL SUMMARY

Business technology professional and software developer with experience building full-stack applications, AI/ML solutions, business management systems, and digital tools. Skilled in software development, data management, business operations, and technical problem-solving, with practical experience taking software projects from development through deployment. Strong understanding of both technical and business requirements, with a detail-oriented, adaptable, and results-focused approach to delivering reliable solutions.

CORE SKILLS

- **Programming:** Python, JavaScript, TypeScript, C++, HTML5, CSS3
- **Frameworks & Development:** React, FastAPI, Express, Vite, Material UI, REST API Development
- **Databases & Data:** PostgreSQL, SQLAlchemy, Prisma, pgvector, Redis, Database Design, Data Management
- **AI & Machine Learning:** Machine Learning, AI-Assisted Applications, Retrieval-Augmented Generation (RAG), Vector Search, Ollama, Google Gemini, ONNX, Prompt Engineering
- **Authentication & Security:** JWT, Role-Based Access Control (RBAC), Authentication, Authorization
- **Testing & Engineering:** pytest, Software Testing, Debugging, API Testing, Database Migrations, Technical Documentation
- **Version Control & Deployment:** Git, GitHub, Cloudflare, Vercel, Northflank, Render, Neon PostgreSQL, Supabase Storage
- **Business Technology:** Business Systems, Inventory Management, Process Analysis, Workflow Automation, Data Management
- **Professional:** Problem-Solving, Communication, Project Coordination, Technical Documentation
- **Productivity:** Microsoft Excel, Word, Outlook, Google Docs

SELECTED PROJECTS

Forex AI Analyst

Full-Stack AI/ML Application | [GitHub](#) | [Live Demo](#)

React, TypeScript, FastAPI, Python, PostgreSQL, Redis, Machine Learning

- Developed a full-stack foreign exchange and gold market analysis platform integrating six machine learning models with technical indicators and market-structure analysis.
- Implemented analytical workflows incorporating indicators such as RSI, MACD, ADX, Bollinger Bands, market structure, liquidity and fair value gaps.
- Built REST APIs and a responsive web interface for presenting market data and model-generated analysis.
- Deployed the application using Vercel, Northflank, Neon PostgreSQL and Upstash Redis.

Smart Bizz System

Business Management & Inventory Platform | [GitHub](#) | [Live Demo](#)

React, TypeScript, Vite, Material UI, Express, Prisma, PostgreSQL, JWT

- Developed a full-stack business inventory and management platform supporting Admin, Manager and Cashier roles.
- Implemented role-based access control, inventory management, authentication and business management workflows.
- Deployed the application using Vercel, Render, and Neon PostgreSQL.

RawFeed

Event-Based News Aggregation Platform | [GitHub](#) | [Live Demo](#)

React, TypeScript, Vite, FastAPI, PostgreSQL, Redis, SQLAlchemy, Alembic, Ollama

- Developed a Kenya-first event-based news platform designed to surface important stories while reducing information overload from social media.
- Built a FastAPI backend with authentication, user preferences, PostgreSQL persistence and Redis integration.
- Implemented scheduled news ingestion and AI-assisted enrichment workflows using a locally hosted Ollama AI model.
- Deployed the application using Vercel, Northflank, Neon PostgreSQL and Upstash Redis.

Study Assistant AI

AI-Powered Learning & Study Platform | [GitHub](#) | [Live Demo](#)

React, TypeScript, FastAPI, Python, PostgreSQL, pgvector, Gemini, ONNX

- Developed a full-stack AI-powered learning platform enabling students to understand academic material, generate practice content, organize study sessions and track academic progress.
- Implemented semantic search using PostgreSQL with pgvector and 384-dimensional embeddings generated through an ONNX-based all-MiniLM-L6-v2 model for retrieval-based learning workflows.
- Built REST APIs with FastAPI, SQLAlchemy and Alembic, incorporating authentication, data validation, database migrations and automated testing with pytest.
- Integrated Google Gemini for production AI inference with optional Groq fallback and Ollama support for local development through a configurable AI provider architecture.
- Deployed the application using Vercel, Northflank, Neon PostgreSQL and Supabase Storage for production file uploads.

PROFESSIONAL EXPERIENCE

Freelance Software Developer & Data Entry Specialist – Fiverr

Location: Remote

Period: Nov 2023 – Present

- Develop software solutions using Python, JavaScript, C++, HTML, and CSS based on client requirements and operational needs.
- Perform data entry, web research, data organization, document preparation, and other digital support tasks with strong attention to accuracy.
- Use Git and GitHub for version control and software project management.
- Prepare technical documentation and maintain organized project deliverables.
- Manage multiple assignments while meeting client requirements, quality standards, and deadlines.

Software Developer | Digital Solutions – Upwork

Location: Remote

Period: Jan 2024 – Present

- Develop custom software solutions and web applications tailored to client requirements and operational needs.
- Troubleshoot software issues, implement bug fixes, and improve application performance and functionality.
- Enhance existing applications through feature development, technical updates, and maintenance.
- Communicate with clients to understand requirements, provide project updates, and deliver solutions within agreed timelines.

Executive Assistant (Contract Support)

Athena Client Projects

Location: Remote

Period: June 2025 – August 2025

Supported client projects delivered through Athena, working under contract supervision.

- Supported business operations by creating digital vCards and maintaining client information in Salesforce.
- Coordinated travel logistics through TripAdvisor and managed event scheduling using Outlook Calendar.
- Conducted comparative analysis of FedEx vs. UPS shipping rates to optimize cost efficiency.
- Designed and maintained Excel-based “tombstone” project tracking car brands, dealerships, and inventory.

Sales Agent – House of Lavender

Location: Ruai, Nairobi

Period: Nov 2023 – Aug 2025

- Processed sales transactions and managed inventory updates.
- Resolved complex customer inquiries and processed returns by providing tailored solutions, contributing to a positive brand reputation.
- Maintained organized stock levels and conducted weekly restocking and reconciliation.

EDUCATION BACKGROUND

Jomo Kenyatta University of Agriculture and Technology (JKUAT)

Bachelor of Business Information Technology (BBIT) | 2024 – Present

Sochoi Boys High School

Kenya Certificate of Secondary Education (KCSE) | 2023

School Captain, led the student body and coordinated school functions

CERTIFICATIONS

Cybersecurity Fundamentals — IBM

September 2026 · [Verify Credential](#)

Web Development Fundamentals — IBM
September 2026 · [Verify Credential](#)

Getting Started with Generative AI — IBM
August 2026 · [Verify Credential](#)

AI Literacy — IBM
August 2026 · [Verify Credential](#)

Craft Precise Prompts — IBM
August 2026 · [Verify Credential](#)

AI Fundamentals — IBM
August 2026 · [Verify Credential](#)

Introduction to AI for Information Consumption — Appen
March 2025

LANGUAGES

- English – Fluent
- Swahili – Fluent

REFERENCES AVAILABLE UPON REQUEST
