KELYN NJERI

Senior Backend Engineer | Distributed Systems, Payments & Data Platforms
Nairobi, Kenya (UTC+3) | Fully remote, EU and US time zone overlap | Open to contract or full-time
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PROFESSIONAL SUMMARY

Backend and platform engineer with 9 years of engineering experience. Founding engineer and one of two engineers on a US fintech platform: where I own the backend, AWS architecture and payments stack. I selected Stripe and ran the migration when Chase discontinued WePay; integrated Plaid and Modern Treasury; hold p95 API latency **under 100ms** and cut monthly cloud spend by **30%**. Previously automated dispatch for a Nairobi logistics operator, cutting delivery time **from 2-3 hours to 45 minutes**. Nine years fully remote across four continents.

Core stack: TypeScript, Node.js, Python, Go, AWS, PostgreSQL, MongoDB, Redis, BullMQ, Docker, Stripe, Plaid

PROFESSIONAL EXPERIENCE

Founding Engineer (Contract) | Backbone Technologies, Inc.

Oct 2022 - Present | Remote (Memphis, TN, USA)

Financial management platform for microbusinesses and self-employed professionals. One of two engineers; own the backend, infrastructure and solution architecture end to end, working directly with the CEO.

- Led the payments architecture: selected Stripe as the replacement when Chase discontinued WePay, then rebuilt payment processing and payout flows around it.
- Architected the platform on AWS and cut monthly cloud spend by **30%** in a targeted cost-optimization pass.
- Built the event-driven backend in TypeScript and Node.js on BullMQ with Express, MongoDB and Redis, holding p95 API latency **under 100 milliseconds**.
- Integrated Plaid for bank account linking and transaction ingestion, and Modern Treasury for payment rails.
- Shipped a user-facing ML classifier that categorizes members' Plaid transactions for accounting, plus the internal staff and customer dashboards, instrumented with PostHog for activation and engagement metrics.

Senior Software Developer | PowWater

Mar 2024 - Feb 2025 | Nairobi, Kenya

Water delivery logistics operator serving Nairobi.

- Automated the dispatch process across fill-site assignment, route optimization and fleet management, cutting delivery time **from 2-3 hours to roughly 45 minutes** and raising driver utilization.
- Introduced data-driven load balancing across high-volume dispatchers, prioritizing internal drivers while allocating third-party capacity fairly.
- Redesigned the logistics platform front end in React, measurably improving live operations productivity.
- Added unit, integration and end-to-end test coverage, and ran structured testing and focus groups with dispatchers and drivers to drive continuous improvement.

Senior Software Engineer | Naya Labs

Jan 2022 - Mar 2024 | Remote (Washington, USA)

Forward-deployed engineer, embedded with client engineering teams on 3–6-month engagements, across distributed teams spanning the US, UK, Canada, Kenya, Ghana, Nigeria and Pakistan.

- **OmniArsenal (US defense contractor):** Built the ingestion pipeline and monitoring infrastructure for a Go-based internal CI/CD platform spanning around eight services with a React front end. Traced a month-old production defect that broke real-time operations rendering to an incorrect browser storage reference.

Software Engineer | Sonolabs

Apr 2021 - Jan 2022 | Remote, Nairobi, Kenya

- Owned the computer-vision pipeline behind automated meal logging: from a single user photo of a plated meal, the model segmented individual items and classified each by food type, portion quantity, food group and nutritional content.
- Curated, annotated and cleaned the underlying dataset of locally available Kenyan foods, as no suitable public dataset existed for the cuisine.
- Built the Flutter nutrition application around it, including a recommender tailored to users' health conditions and goals.
- Delivered backend features on a Go monolith, integrated payment gateways including the M-Pesa Daraja API, mentored a junior engineer and introduced unit and integration testing.

Lead Software Engineer | Fundle
Jan 2021 - Apr 2021 | Remote (Kigali, Rwanda)

- Built a financial-literacy search engine in Python and Django with Elasticsearch, with a TensorFlow natural-language model for voice-based search over a Python and Flask microservice architecture.
- Mentored the engineering team on Python standards and test-driven development.

Freelance Software Engineer (Contract) | Independent
Aug 2017 - Jan 2022 | Remote, Nairobi, Kenya

- Designed, built and maintained web and backend systems for startups and small businesses across East Africa and abroad; cut response times with caching and fewer database round trips, and migrated large systems between AWS and GCP in both directions.

SELECTED PROJECTS

DataQRL | Technical Co-founder and CTO (part-time) | Mar 2025 - Present
Financial crime detection and compliance platform for banks, insurers and regulated institutions.

- Designed and implemented the v1 platform across eight modules covering ingestion, transaction reconciliation, identity resolution, monitoring and alerting, case management and a dedicated privacy plane.
- Built entity resolution at scale to link parties across fragmented source systems, so networks that single-record screening misses become visible.
- Deployed anomaly-detection models and a rule engine automating alert generation and governance, over Celery and Redis distributed processing with connectors for PostgreSQL, MySQL, MongoDB, Snowflake and BigQuery.
- Built multi-agent orchestration on a Neo4j knowledge graph with LangGraph agents and Qdrant semantic recall, wrote the high-compute engine in Go, and mapped compliance controls to GDPR, HIPAA and SOX.

Open source

- **ligase-bio:** type-safe, reproducible computational pipelines, Rust core with Python bindings via PyO3.
- **pict:** CLI project scaffolding for Go, TypeScript, Rust and Python. Both published on PyPI.

Products

- **Domus:** property-management compliance platform for the Kenyan market, built around KRA eTIMS and eRITS reporting mandates.
- **Autobillr:** invoicing and cash-flow automation SaaS with guided onboarding and an automated payment-chase engine across email, SMS and WhatsApp.

TECHNICAL SKILLS

Languages: TypeScript, Python, Go, SQL

Backend & Architecture: Node.js, Express, NestJS, FastAPI, REST APIs, microservices, event-driven architecture, multi-tenant systems, BullMQ, Celery, Redis, job queues, API performance optimization

Payments & Fintech: Stripe, Plaid, Modern Treasury, WePay, M-Pesa Daraja API, ACH, billing systems, payout flows, reconciliation, payment platform migrations, financial crime detection, transaction monitoring, entity resolution

Data: PostgreSQL, MongoDB, MySQL, Neo4j, Qdrant, Elasticsearch, Snowflake, BigQuery, ETL and ELT pipelines, data quality, entity resolution, schema design

Machine Learning & AI: TensorFlow, PyTorch, computer vision, image segmentation and classification, dataset curation and annotation, LangGraph, multi-agent orchestration, retrieval-augmented generation, vector search, recommender systems, anomaly detection

Cloud & Infrastructure: AWS, GCP, Docker, CI/CD, GitHub Actions, solution architecture, cloud cost optimization, observability and monitoring, PostHog product analytics, Linux

Frontend & Mobile: React, Flutter, Android

Practices & Compliance: Test-driven development, unit, integration and end-to-end testing, code review, technical mentoring, remote and asynchronous collaboration, GDPR, HIPAA, SOX control frameworks

EDUCATION

BSc Computer Science | Laikipia University, Kenya | Graduated December 2022 | Second Class Honours, Upper Division

MIT Professional Education | Applied Data Science Program, Professional Certificate | January 2024 – April 2024