TYRONE MGUNI

Software Architect & Senior Backend Engineer

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Software Architect and Senior Backend Engineer with 7+ years building production-grade distributed systems in Go, Python, and Node.js. Designed and owned the full architecture — cloud infrastructure, CI/CD, microservices, secure API design — across multiple product companies. Built an AI-powered malicious URL detection system using Scikit-Learn. AWS Solutions Architect Associate certified. Proven track record leading engineering teams, setting technical standards, and shipping at scale.

CORE SKILLS

Languages: Go (Golang), Python, JavaScript / TypeScript, Rust, Java

Backend: Django, FastAPI, Flask, Fiber (Go), Gin (Go), Spring Boot, Express.js, Node.js, RabbitMQ

Distributed Systems: Microservices architecture, async messaging, RESTful APIs, high-availability design

Security: Secure coding practices, JWT / session auth, ML-based threat detection, encryption at rest & in transit

Infrastructure: AWS (EC2, RDS, S3, Route 53), Docker, Kubernetes, Terraform, Ansible, Nginx, Linux

CI/CD & Monitoring: GitHub Actions, Jenkins, Prometheus, Grafana, Sentry, Vercel

Databases: PostgreSQL, MongoDB, Redis, MySQL, Elasticsearch, Firebase, Supabase

AI & Tooling: TensorFlow, Claude AI, ChatGPT, Figma, Postman

Frontend / Mobile: React, Next.js, React Native, Flutter, Tailwind CSS, Shadcn

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EXPERIENCE

Mviyo Technologies — *Software Architect* Nov 2023 – Aug 2025

▸ Owned the full technical architecture for the organisation's entire product portfolio — selecting technologies, defining infrastructure patterns on AWS, and establishing engineering standards across all projects.

▸ Designed CI/CD pipelines (GitHub Actions, Jenkins) and Kubernetes deployment strategies, achieving zero-downtime deployments across all production services.

▸ Authored and enforced organisation-wide engineering standards covering code style, pull request structure, code review policy, and testing practices across Go, Python, Django, and Laravel projects.

▸ Designed and built a Go-based geo-proximity microservice for the Safi platform, enabling real-time location-based matching between service providers and clients at scale.

▸ Integrated production systems with AWS (EC2, RDS, S3), designing for cost efficiency and resilience, reducing infrastructure spend while maintaining availability targets.

▸ Led project scoping, team composition decisions, and technology selection for all new initiatives — bridging product, engineering, and operations.

Healthify Medical Software — *Senior Software Engineer* Dec 2021 – Nov 2023

▸ Designed and led development of a large-scale distributed claims and contributions platform for medical aid organisations, built on Django, PostgreSQL, and a microservices architecture across multiple independent services.

▸ Engineered a 5x+ API performance improvement through strategic caching, directly reducing server load and improving end-user response times in a high-traffic healthcare environment.

▸ Built a Go-based audit microservice with MongoDB persistence, providing immutable logging of all user actions for compliance and security review.

▸ Created a Node.js PDF generation microservice (Puppeteer / Express.js), decoupling document generation from core business logic and enabling independent scaling.

- ▸ Designed async inter-service communication using RabbitMQ alongside synchronous HTTP, enabling resilient, decoupled service interactions.
- ▸ Stood up and managed production Kubernetes clusters for Docker-based, load-balanced deployments with Jenkins and GitHub Actions CI/CD — zero downtime across all releases.

Intelli Africa Solutions — *Software Developer* Feb 2021 – Dec 2021
- ▸ Engineered a full-stack bulk SMS and email dispatch platform integrating with multiple carrier networks, built on Python, Django, Celery, and PostgreSQL — handling high message throughput asynchronously.
- ▸ Published and maintained open-source API client SDKs for the Intelli SMS Gateway on PyPI (Python) and NPM (Node.js), enabling third-party developer integrations.
- ▸ Implemented military-grade encryption for payment data at rest and in transit in a React.js merchant dashboard integrated with PayPal and Payfast.
- ▸ Managed and configured Ubuntu production and test servers for all platform environments.

Integrity Business Solutions — *Intern* Aug 2019 – Aug 2020
- ▸ Deployed and configured Linux server infrastructure for Hansaworld Standard ERP installations at multiple client sites.
- ▸ Customised the Hansaworld ERP using the proprietary HULL scripting language; delivered data migration tooling to transition client data from legacy databases.
- ▸ Delivered end-user training to client teams across multiple organisations.

Dryback Technology — *Software Developer (Contracts)* Feb 2019 – Present
- ▸ Designed and built a full-featured ERP (Vantage Point) with a React Native mobile POS and React back-office dashboard; backend in Go (Fiber) with Redis and PostgreSQL — production system managing real retail operations.
- ▸ Developed a Golang-based tenant management system with a React.js frontend and PostgreSQL; includes mobile self-service access for tenants.
- ▸ Built an asset registry system in Django / React tracking real-time asset locations, automating depreciation and revaluation calculations.
- ▸ Architected and managed the Acrepoint Housing System (Django, Celery, React.js) — a WhatsApp-integrated real estate platform connecting developers with buyers.

SELECTED PROJECTS

Kraven the Hunter *Python · Scikit-Learn · FastAPI · React · JavaScript*
An AI-powered Chrome extension that detects malicious URLs in real time using a Scikit-Learn binary classification model served via FastAPI. Trained on labelled phishing and malware datasets; the extension parses the active tab URL and returns a threat assessment. Directly applicable to threat intelligence and security tooling.

Bin Appétit *Python · TensorFlow · React · React Native*
AI-powered mobile and web application enabling citizens to identify, locate, and report exposed waste using image recognition — deployed in a live civic context.

Vantage Point ERP *Go · Fiber · React · React Native · TypeScript · Redis · PostgreSQL*
Enterprise retail management system with full accounting, audit-ready reporting modules, and a mobile POS — currently in production use.

EDUCATION & CERTIFICATIONS

National University of Science and Technology — *Bachelor of Commerce — Finance,* Sept 2016 – May 2020