Stephen Kioni Mwangi

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WORK EXPERIENCE

Canonical
Software Engineer
January 2024 - Present
Remote

Savannah Informatics
Software Engineer
June 2022 - December 2023
Nairobi, Kenya

- Led the design and development of the backend of an Electronic Medical Records and Patient Engagement system *(Python, Django, Django Rest Framework, Kubernetes, GCP, Docker, RabbitMQ, Redis, Golang, GraphQL)*

- Implemented and designed the company's SMS and USSD API gateway and integrated it with a major Kenyan telecommunications provider, reducing comms costs by $\approx$40% *(Python, Django, Django Rest Framework, GCP, RabbitMQ, Redis, Swagger/OpenAPI documentation)*

- Participated in re-platforming existing backend infrastructure from Google Cloud Run to use Google Kubernetes Engine which reduced the company's infrastructure cost by $\approx$55%

- Implemented an event-driven usage-based billing module that integrated with prepaid wallets on an internal ERP system

- Optimized existing APIs through application-level caching and query optimization which reduced p95 latency by $\approx$80% (Talk given on Django performance)

- Setup observability to collect metrics and logs using Telegraf, InfluxDB, Grafana, and Sentry for monitoring and error-reporting

- Guided and coached new hires and interns

Savannah Informatics
Software Engineer Intern
June 2021 - May 2022
Nairobi, Kenya

- Maintained and developed the Slade360 Electronic Data Interchange system *(Python, Django, Django Rest Framework)*

- Wrote unit, integration, and end-to-end tests

EDUCATION

University of Nairobi
BSc. Computer Science
September 2018 - September 2022
First Class Honours

Relevant coursework: Software Engineering, Distributed Systems, Data Structures and Algorithms, Design Thinking, Systems Analysis and Design, Artificial Intelligence, Machine Learning, Compiler Construction

OPEN SOURCE PROJECTS

Obsidian Spaced Repetition (link)
April 2021 - Present

Spaced Repetition plugin written in TypeScript for the note-taking tool Obsidian. It has been downloaded over 350,000 times and translated into 10+ languages by a global community of users.

Impulse (link)
December 2022 - Present

Impulse is a distributed key-value store written in Golang. It implements various storage engines (Hash Maps, LevelDB, LSM Trees, B Trees), replication, range queries, chaos testing, and data sharding.

Elixir (link)
December 2021 - May 2022

Elixir is a distributed electronic health records system written in Python/Django and JavaScript/Svelte.

SKILLS

Programming: Python (Django, DRF, Celery), Golang, GraphQL, SQL, TypeScript, JavaScript, HTML/CSS, Rust

Infrastructure: Kubernetes, Google Cloud Platform, Docker, PostgreSQL, Redis, RabbitMQ

Observability: Grafana, Telegraf, InfluxDB, Sentry

CI/CD: Gitlab CI/CD, GitHub Workflows, Helm, Ansible