

# Stephen Kioni Mwangi

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## WORK EXPERIENCE

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**Canonical** January 2024 - Present  
**Software Engineer** *Remote*

- Designing and developing remote management capabilities for Ubuntu Core device (*Golang, Python, Juju*)
- Contributed to the packaging of the Landscape client as a snap

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

- Led the design and development of the backend of an Electronic Medical Records and Patient Engagement system (*Python, Django, Golang, Kubernetes, Google Cloud Platform, RabbitMQ*)
- Implemented and designed the company's SMS and USSD API gateway and integrated it with a major Kenyan telecommunications provider, reducing comms costs by  $\approx 40\%$
- 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** June 2021 - May 2022  
**Software Engineer Intern** *Nairobi, Kenya*

- Maintained and developed the Slade360 Electronic Data Interchange system (*Python, Django*)
- Wrote unit, integration, and end-to-end tests

## EDUCATION

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**University of Nairobi** September 2018 - September 2022  
**BSc. Computer Science** *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

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**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.

**Little Key-Value** ([link](#)) January 2025 - Present

Little Key-Value is a distributed key-value store written from scratch in Go as part of a build-your-own-x blog series.

**Beacon DNS** ([link](#)) August 2024 - April 2025

Beacon DNS is a DNS resolver with customizable filtering for malware, trackers, ads, and other unwanted content.

## SKILLS

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**Programming:** Python (Django), Golang, SQL, TypeScript, JavaScript, HTML/CSS

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

**Observability:** Grafana, Telegraf, InfluxDB, Sentry

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