

# Sheila Kahwai

## Backend/ML Engineer

Experienced software engineer specializing in backend systems, with expertise in API development, machine learning, relational databases, cloud computing, CI/CD, containerization, and test-driven development. Bachelor's degree in Computer Science and a proven track record of impactful contributions to open-source and startup projects.

## Contact

### Phone

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### Email

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### GitHub

<https://github.com/Sheila-nk>

### LinkedIn

<https://www.linkedin.com/in/sheila-kahwai>

## Skills

- Python
- AWS
- Flask & FastAPI
- PostgreSQL
- Docker
- Tensorflow

## Education

May 2022 to Nov 2022

**The African Leadership(ALX) Software Engineering Programme**

Apr 2019 to Aug 2019

**The Tony Elumelu Foundation Entrepreneurship Programme**

Sept 2014 to Nov 2018

**Bsc. Computer Science**

**Jomo Kenyatta University of Agriculture and Technology**

## References

Available on Request

## Experience

### Jan 2023 - Present

Shelfy Africa | Remote, Kenya

#### Backend/ML Engineer

- Spearheaded the design and development of a robust RestfulAPI with Flask, ensuring seamless integration and optimal functionality.
- Developed and automated a model training pipeline, optimizing data preprocessing, model training, and evaluation processes, resulting in an efficient and streamlined machine learning workflow.
- Implemented an image retrieval and recommendation system utilizing TensorFlow and computer vision techniques, integrating deep learning models to enhance visual search capabilities and improve personalized recommendations.
- Engineered and optimized a PostgreSQL database, ensuring data integrity, security, and high performance.
- Orchestrated application containerization via Docker, streamlining deployment and enhancing scalability.
- Managed configuration and maintenance of AWS cloud storage (S3), server (EC2), and database solutions (RDS), ensuring seamless operations, and robust infrastructure.

### July 2023 - September 2023

Quansight Labs | Remote

#### Open Source Engineering Intern

- Developed a robust pytest plugin to enhance doctesting capabilities for PyData libraries, improving testing efficiency and accuracy.
- Integrated the pytest plugin into the Scipy repository, enhancing the doctesting experience for Scipy users and contributors.
- Automated the collection and execution of doctests across Scipy's module library using Pytest, streamlining the testing process and reducing manual intervention.
- Identified and resolved doctest failures across 7 Scipy modules by leveraging the pytest plugin, contributing to the library's overall reliability, quality, and accuracy by 15%.
- Crafted unit tests by utilizing the pytest module to verify the accuracy and reliability of the plugin.

### Dec 2022 - March 2023

Project JupyterHub | Remote

#### Outreachy Software Engineering Intern

- Developed a reusable pytest plugin to improve the testing infrastructure of JupyterHub and its components.
- Led the project's packaging infrastructure setup and configuration using Hatchling and Setuptools.
- Configured and automated the project's document generation and hosting on ReadTheDocs using Sphinx.
- Implemented CI/CD practices for the Pytest Plugin using GitHub Workflows to reduce build and test times and improve collaboration within the JupyterHub community.
- Published the reusable JupyterHub Pytest Plugin to PyPI, contributing to its accessibility and usability.
- Implemented additional unit tests within the Dockerspawner repository improving test coverage by 5%.