

# LYLE OKOTH

## SOFTWARE ENGINEER

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## PROFESSIONAL SUMMARY

A software engineer with 3+ years of experience building fast, scalable, well tested and documented APIs using both Flask and FastAPI and deploying to Amazon Web Services. Co-founded an agricultural startup that helped farmers monitor their crop health level.

## PROFESSIONAL EXPERIENCE

Ubunifu farms • 08/2019 - 09/20221

### BACKEND DEVELOPER

- Implemented redis queues to decouple the two microservices that made up the backend increasing the overall resilience as well as speed of service delivery.
- Built a robust authentication and authorization feature that used both Google Auth and JSON Web tokens for the farmers and third party APIs.
- Worked with the data scientists to implement redis workers for image ingestion, preprocessing and model prediction that made our service significantly faster.
- Built a custom python library for uploading images to AWS S3 using celery workers that reduced a lot of duplicate code.
- Designed the image storage scheme on S3 to include both location and timestamps making it easier to later analyze them.
- Worked with our data scientists to build the search and recommendation engine that used elasticsearch to provide quick and accurate answers to farmers' questions.
- Implemented a redis cache that significantly sped up the response to farmers queries.
- Did technical documentation, both internal and user-facing making it easier to onboard new engineers and our API easier to use by other third parties.

## TECHNICAL SKILLS

• *Python • JavaScript • React • PostgreSQL • Amazon Web Services • SQL • Flask • Elasticsearch • Celery • Redis*

## PROFESSIONAL EDUCATION

B.Sc. in Mechatronics Engineering • 2016 –2019

Jommo Kenyatta University of Agriculture and Technology • Nairobi, Kenya

Member • Society of Engineering Students (SES)

**Relevant coursework:** • C, C++ Programming • Solidworks • Matlab

## PERSONAL PROJECTS

• **YouTube V3 Wrapper (ayv):** • *Python*

A python library that wraps around the YouTube V3 API and enables content creators to manage YouTube resources such as Videos, Playlists, Channels and Comments.

• **INFLUENCER API:** • *Python • FastAPI • Flask • Elasticsearch • Redis • AWS Traefik*

An API that provides developers and analysts with stats on Videos, Channels and Playlists for Kenyan Content creators.