

DORINE TIPO

Software Engineer

[Github profile](#)

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Nairobi, Kenya



SUMMARY

I am a Software Engineer with a strong focus on Python and backend development. I have hands-on experience building scalable, microservices-based systems and have successfully contributed to several open-source projects. I specialize in designing RESTful and GraphQL APIs using frameworks such as FastAPI and Ariadne, and I excel at integrating services with Docker and Kubernetes for modern containerized deployments. My expertise includes designing modular architectures, implementing robust data pipelines, and leveraging asynchronous processing for real-time applications. I continually expand my skills through hands-on projects and continuous learning, with a solid foundation in cloud-native technologies, automated CI/CD pipelines, and test-driven development.

EDUCATION

Africa Leadership University - ALU

Software Engineering

University of Nairobi

BSc. Biology

May 2013 - Sept 2018

SKILLS

- **Programming** - C, Python, JavaScript, Go
- **Frameworks** - Django, FastAPI, Flask, NodeJs
- **Testing** - pytest
- **Linux Kernel Development** - Configuration, testing, debugging, device drivers and patches
- **Version Control Systems** - Git, Git workflows and Repository management, GitHub
- **Build Systems and Toolchains** - Kconfig, Kbuild, cross-compilers, Make, clang/LLVM
- **Virtualization and Embedded Systems** - QEMU, KVM, sandboxing, Yocto
- **APIs** - RESTful API, GraphQL
- **Server Configuration and Management** - Nginx, Apache, Unicorn, Kong.
- **Containerization and Orchestration** - Docker, Kubernetes, Docker Swarm, Airflow Breeze.
- **Software Development** - Packaging, microservices architecture and design, refactoring
- **Databases** - Mysql, Redis, PostgreSQL.
- **Data Processing** - Pandas

CERTIFICATIONS

- A Beginner's Guide to Linux Kernel Development - completed
- Docker essentials - completed
- Forage Lyft Back-End Engineering Job Simulation - completed

REFERENCES

Xin Xin - Co-Executive Director

Processing Foundation

xin@processingfoundation.org

Shuah Khan - Linux Kernel Maintainer

skhan@linuxfoundation.org

PROFESSIONAL EXPERIENCE

Archival Software Engineer

Processing Foundation

June 2025 - Present

- Designed and launched the official p5.js 2.0 Open Call on OpenProcessing, spotlighting multilingual typography and mental health through creative coding.
- Created outreach content across Discord, Instagram, and email; produced promotional videos and community posts to boost visibility and engagement.
- Developed a Google Apps Script to automate customized mass email outreach to over 400 artists and community contacts, streamlining communication for the p5.js 2.0 open call.
- Developed and refined Python-based tools for scraping, downloading, and organizing digital artworks from artist websites into structured archives.
- Built and maintained archival infrastructure, including folder hierarchies on Google Drive, metadata standards, and JSON-to-spreadsheet pipelines.
- Curated and reviewed community submissions for accessibility, inclusivity, and technical merit as part of a broader open source art preservation strategy.
- Collaborated with team leads and contributors to draft communication templates, update web banners, and feature open calls on public platforms.

Intern Software Engineer

Commit Global

March 2025 - June 2025

- Refactored and optimized the Django backend for Redirectioneaza, enhancing performance and maintainability.
- Collaborated with cross-functional teams to plan, test, and debug application features, ensuring quality and seamless integration.

Linux Foundation mentee

Linux Kernel

March 2024 - September 2024

- Linux Kernel Debugging
- Event Tracing
- Dynamic Analysis
- Style Fixes and Code Cleanup
- Kernel Patching -
- Linux Kernel Testing