

Eden Gilbert Kiseka

Software Engineer

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📍 Kampala, Uganda

SUMMARY

Software Engineer with a strong foundation in mobile development (Android/iOS) and backend infrastructure. Unique combination of design and development expertise capable of designing intuitive user experiences in Figma and implementing them pixel perfectly in code. Proven track record in leading technical initiatives, architecting backend systems, and instructing next generation engineers. Strong foundation in Material Design 3, iOS Human Interface Guidelines, MVVM architecture, and modern mobile development practices. Early adopter of emerging frameworks including Lynx (ByteDance's cross-platform solution).

EXPERIENCE

Backend Engineer

Googah Goats Limited

Oct 2025 – Present
Kampala, Uganda

- Architect backend infrastructure using Google AppScript and JavaScript for startup operations.
- Design data workflows and automation systems connecting spreadsheet-based backend to frontend applications.
- Build custom APIs and integration scripts, demonstrating full-stack development capabilities.

Technical Instructor

Neriko Electronics

Oct 2024 – Sep 2025
Kampala, Uganda

- Taught embedded systems programming using C/C++ and Arduino to students.
- Developed curriculum and hands-on labs, demonstrating strong technical communication skills.
- Instructed students in development tools: PlatformIO, TinkerCAD, Fritzting, Proteus, Eclipse, and NetBeans.

PROJECTS

Amber – Android Reconstruction Pipeline

Kotlin, DEX IR, SSA, JavaPoet, Gradle, Apache 2.0

[View Repository](#)

- Lifts APK and DEX artifacts into typed IR, control-flow graphs, SSA form, and generated source, then synthesises a complete, buildable Android Studio project around the result.
- Implements dex parsing, Java/Kotlin emission, Gradle synthesis, metadata analysis, and evidence-rich diagnostics – turning reverse engineering into a structured, reproducible engineering workflow.
- Supports Compose detection, metadata-aware Kotlin recovery, and full resource pipeline integration; validated end-to-end against real APKs via GitHub Actions CI.

kore – Portable Schrödinger-Poisson Kernel

Rust, PyO3, C ABI, NumPy, RustFFT, Rayon, pykore 0.2.1

[View Repository](#)

- Portable Rust core for Schrödinger-Poisson research workloads; single validated kernel surfaced as Rust crate, pykore Python bindings (PyPI 0.2.1), and stable C ABI with generated `include/kore.h`.
- pykore NumPy-first API (Grid, Config, State, Kernel) with in-place `complex128` stepping via PyO3, GIL released on compute path; optional HDF5 checkpointing (`checkpoint-hdf5`) for resumable runs, versioned across surfaces.
- Verified by Rust + Python integration tests, strict C11 smoke builds, header-drift checks, and packaging workflows; documented in `docs/index.md` and `paper.pdf`.

Flare DAW – Rust Audio Engine & GPU UI DAW Workspace

[View Repository](#)

Rust, GPU UI, Audio DSP, Real-time Processing, GitHub Actions

- Custom DAW workspace built in Rust with GPU UI, featuring a real-time audio engine with lock-free DSP chain (EQ, compressor, reverb) at 128-sample buffers (2.67 ms @48kHz).
- Implements multitrack mixing with pan law, offline WAV export, and project persistence; architected for 60fps UI with < 8 ms recomposition.
- Validated on Android/iOS toolchains for future mobile DAW port; demonstrates deep audio systems expertise directly relevant to AI-infused workstation work.

KaCinema – Netflix-Style Streaming Platform

[View Repository](#)

Spring Boot, Android, Jetpack Compose, REST APIs, Firebase

- Full-stack streaming platform with Spring Boot backend (auth, catalog, watchlist APIs) and native Android client using Jetpack Compose and MVVM with Repository pattern.
- Implements adaptive media playback, caching with Room/DataStore, and REST integration via Retrofit/OkHttp with coroutines/Flow.
- Deployed backend with CI/CD via GitHub Actions; demonstrates scalable cloud + mobile product delivery for content-driven apps.

Fancy Deals – Android E-Commerce + Firebase + Admin Dashboard

[View Repository](#)

Kotlin, Firebase, Firestore, Jetpack Compose, Admin Dashboard

- Android e-commerce app with Firebase Auth/Firestore, real-time inventory, cart and checkout flows built in Kotlin with Coroutines and Material Design 3.
- Ships with role-based Admin Dashboard for catalog/order management, offline-first caching and retry logic for unreliable networks.
- Published architecture with Hilt DI, Room caching, and Play Console-ready AAB including signing and staged rollout readiness.

TECHNICAL SKILLS

Android Development	Kotlin, Java, Jetpack Compose, XML	Backend Services	Firebase, Supabase
iOS Development	Swift, SwiftUI, UIKit	Web Development	JavaScript, TypeScript, Svelte, Angular
UI Frameworks	Material Design 3, iOS Human Interface Guidelines	UI/UX Design	Figma, User Research, Wireframing, Prototyping
Architecture	MVVM, Clean Architecture, Repository Pattern, MVC	Other Languages	Python, C, C++, Go, Rust
Android Jetpack	Navigation, Room, ViewModel, LiveData, WorkManager, DataStore	Native IDEs	Android Studio, Xcode
Cross-Platform	Lynx (ByteDance), KMP	Legacy IDEs	Eclipse IDE, NetBeans IDE
Async	Coroutines, Flow, RxJava, Combine	Development Tools	IntelliJ IDEA, VS Code
Dependency Injection	Hilt, Dagger, Koin	Version Control	Git, GitHub, GitLab
Networking	Retrofit, OkHttp, REST APIs, Alamofire	CI/CD	GitHub Actions, Fastlane

EDUCATION

Associate Degree in Electrical Engineering & Computer Science

University of the People

2025 – 2027
United States

Diploma in Electronics and Electrical Engineering

Uganda Institute of ICT

2025 – 2027
Uganda

LANGUAGES

English

Fluent

Luganda

Fluent

French

Intermediate (B2)