ANCEL AJANGA

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Portfolio: https://ancel.co.ke/

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PROFESSIONAL SUMMARY

Systems-oriented Fullstack Engineer specializing in building resilient, fault-tolerant infrastructure across fintech and enterprise domains. Expert in architecting **self-healing microservices**, **cryptographic data integrity**, and **hybrid database solutions** that scale to handle thousands of concurrent transactions and high-frequency data ingestion.

TECHNICAL ARSENAL

- **Languages & Core:** TypeScript, Node.js, Python, Dart (Flutter 3.x), PHP, Java, C++.
- **Backend & Architecture:** NestJS, FastAPI, Microservices, Event-Driven Design, Multi-tenant SaaS.
- **Cloud & Infrastructure:** Kubernetes (K8s), Docker, Terraform, Prometheus, Grafana, Cloudflare.
- **Databases & Security:** PostgreSQL (Chained Ledgers), MongoDB, Redis, JWT/RBAC, HMAC Signatures.

KEY ARCHITECTURAL PROJECTS

Aegis | AI-Driven Infrastructure & Performance Monitoring

- **Problem:** Reacting to silent infrastructure failures that cause critical system downtime.
- **Solution:** Architected a four-layer monitoring suite (Observation, Intelligence, Policy, Execution) to proactively identify and remediate system failures.
- **Impact:** Integrated ML-driven anomaly detection (Isolation Forest) to automate Kubernetes remediation, ensuring 99.9% availability and auditable system governance.

NestFi | Multi-Tenant Fintech Ecosystem

- **Solution:** Architected a resilient, multi-tenant finance platform designed to handle large-scale invoice processing, payment tracking, and financial analytics.
- **Engineering Win:** Implemented strict service isolation boundaries and team-based multi-tenancy across 50+ API endpoints to ensure 100% data isolation.
- **Impact:** Leveraged a dual-database architecture (PostgreSQL + MongoDB) and real-time WebSockets to provide sub-second data synchronization for distributed teams.

LedgerX | Secure Fintech Transaction Engine

- **Solution:** Engineered a double-entry accounting engine featuring **append-only cryptographic hash chains** for immutable financial records.
- **Impact:** Guaranteed 100% audit integrity for multi-tenant operations with sub-second transaction finality and zero-trust verification.

PROFESSIONAL EXPERIENCE

Freelance Software Engineer & Consultant | *March 2024 – Present*

- Architecting multi-tenant SaaS platforms (EduManage, NestFi) focusing on service isolation, containerization, and horizontal scaling.
- Implementing **Zero-Trust** communication patterns and HMAC-signed webhooks for secure third-party financial integrations.
- Developed the **Polka Dots System**, a restaurant management platform optimizing real-time order workflows and stock tracking for three distribution channels.

Full Stack Developer (Independent Projects) | *2024-present*

- Developed high-frequency data ingestion pipelines using hybrid database strategies (PostgreSQL + MongoDB).
- **Aegis | AI-Driven Infrastructure & Performance Monitoring**: Architected a four-layer monitoring suite (Observation, Intelligence, Policy, Execution) to proactively identify and remediate critical system failures.
- **EduManage | Multi-Tenant School Management SaaS**: Designed a scalable SaaS platform that enforces strict tenant isolation and hierarchical Role-Based Access Control (RBAC).
- **NestFi | Resilient Financial Coordination Platform**: Developed a multi-tenant platform using a hybrid database architecture (PostgreSQL for financial correctness and MongoDB for events) to manage large-scale invoice processing and analytics.
- **LedgerX | Secure Fintech Transaction Engine**: Engineered a double-entry accounting engine featuring append-only cryptographic hash chains to guarantee 100% audit integrity for multi-tenant financial operations.
- Polka Dots System | Restaurant Management System: Built a comprehensive backend using Node.js and Express to manage dine-in, takeout, and delivery orders with real-time stock tracking.
- **Blog Platform with Admin & Analytics**: Created a full-cycle content site using React and Supabase, featuring user engagement tracking and a custom management dashboard.
- **SignFlow | Real-Time Assistive Technology**: Built a WebSocket-powered application using modern UI patterns to enhance digital accessibility for users.
- **E-Commerce Ecosystem**: Developed a responsive online store with secure order processing and integrated backend inventory management.

EDUCATION

- **Institute of Software Technologies** | *Diploma in Software Engineering* (**Completed Nov 2023**)
- **Moringa School** | *Certificate in Full Stack Development* (**Graduated Feb 2022**)

Soft Skills

Architectural Storytelling & Communication: Expert at translating complex system designs into clear, actionable roadmaps for stakeholders while maintaining strong teamwork across cross-functional departments.

Technical Mentorship: Passionate about code quality and conducting constructive code reviews that empower junior developers, fostering an environment of shared growth.

Adaptive & Rapid Problem Solver: A fast learner who thrives in dynamic, high-pressure environments by maintaining a calm, logic-first approach to incident response and functionality optimization.

Reliable System Optimizer: Adept at enhancing and optimizing both legacy code and new ideas to deliver scalable, efficient software solutions

Learning & Growth

- **Infrastructure & Platform Engineering:** Advancing expertise in **Self-Healing Infrastructure** and **AIOps** to automate system remediation and enhance service reliability.
- **Mobile Architecture:** Scaling cross-platform expertise in **Flutter 3.x** and **React Native**, focusing on high-performance state management and offline-first data synchronization.
- **Applied AI & Machine Learning:** Integrating **Anomalous Pattern Detection** (Isolation Forests) and LLM-based diagnostic tools directly into DevOps pipelines.
- **Distributed Systems Security:** Deepening knowledge in **Zero-Trust architecture**, cryptographic audit trails, and advanced HMAC signing protocols for fintech security.

Interests & Hobbies

The Strategist: Sports enthusiast (Soccer and Rugby) with a history in competitive inter-class sports. These activities instilled a deep appreciation for high-speed teamwork, discipline, and on-the-fly strategy.

The Explorer: Avid hiker and traveler who enjoys the perspective gained from navigating new trails; I find this translates directly to how I navigate and map out complex codebase architectures.

The Community Member: Dedicated to charity work and family time—I believe building a great product is only half the battle; building a great culture through humor and social connection is the other half.

The Polymath: Lifelong learner and reader who finds inspiration in music and nature (animal lover, specifically cats and dogs), maintaining a well-rounded perspective that fuels creative engineering.