Samie A.

ENGINEERING LEAD · FOUNDING ENGINEER · SYSTEMS ARCHITECT

Remote · United States, United Kingdom & Europe · Open to architecture conversations

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Engineering Lead & Founding Engineer architecting scalable platforms across HealthTech, InsureTech, and FinTech.

10M+ app downloads **100K+** daily app users **4** open-source fixes merged upstream

EXPERIENCE

Founding Engineer & Product Engineering Lead, Upmatic
Jul 2026 - present

Zero-to-one · built in collaboration with Systems Limited · San Francisco, California, USA · Silicon Valley

- Lead engineering for Upmatic, a product built in collaboration with Systems Limited, defining the foundational tech stack, infrastructure, and engineering culture from the ground up.
- Design core product architectures utilizing Flutter for cross-platform mobile experiences and a highly scalable Python/Supabase backend.
- Integrate autonomous decision-making capabilities using LangChain and Agent Development Kits within the product ecosystem.

`React.js · Next.js · TypeScript · Python · Docker · Flutter · Supabase · PostgreSQL · LangChain · Agent Development Kit`

Engineering Lead, Insure123
From Jul 2026

InsureTech · FinTech infrastructure · San Francisco, California, USA · Silicon Valley

- Led the technical strategy and system architecture for an emerging InsureTech platform, focusing on high-availability microservices.
- Maintained the underlying FinTech infrastructure to ensure robust transactional integrity and seamless integration with third-party payment gateways.
- Implemented advanced telemetry to track user journeys, reducing drop-off rates during quoting and onboarding processes.

`React.js · Next.js · TypeScript · Node.js · Python · Docker · PostgreSQL · Microservices · Payment Gateways · Telemetry`

Systems-Minded Software Engineer, CCS EthelCare
Dec 2023 - Jun 2025

HealthTech · dedicated devices at scale · United Kingdom & US · remote

- Architected OS-level customizations to deploy EthelCare directly onto dedicated health devices, optimizing kernel resource allocation.
- Engineered a real-time fall detection system integrating YOLOv8 models directly into the mobile architecture for instant health alerts.
- Maintained a cross-platform healthcare ecosystem scaling to 100K+ daily app users.
- Integrated NLP capabilities via Alan AI SDK for voice-command accessibility and behavior analysis.
- Refactored asynchronous network calls based on app telemetry and performance data, improving response time and memory efficiency by 30%.
- Architected a React.js and Node.js web dashboard for user telemetry and health data, with server-side rendering and optimized REST endpoints that cut page load times by 25%.
- Led the CI/CD implementation with GitHub Actions and Jenkins, and cut deployment times by 40% by optimizing the pipelines against build-time data.

`Custom ROM · YOLOv8 · Kotlin · Swift · Flutter · React.js · Node.js · Firebase · Alan AI SDK · GitHub Actions · ADB`

OPEN SOURCE

- oliexdev/openScale #1504: Beurer scales recorded weigh-ins 68 years in the future. Merged.
- pymodbus-dev/pymodbus #3017: A Modbus library that could not round-trip its own frames. Merged.
- casact/chainladder-python #1262: Correlation tests crashed on real-world reserving triangles. Merged.
- Graphify-Labs/graphify #4468: Two names in one file collapsed into one graph node. Merged.

PROJECTS

Autonomous AI Study Assistant & RAG System · Local retrieval · no cloud round-trip

Building a dynamic, context-aware retrieval system for dense educational documentation without inheriting cloud LLM latency on every keystroke. Sub-second query resolution end to end, with rapid similarity search and dynamic context generation that holds up on documents the model has never seen.

`Python · LangChain · Pinecone · Agent Development Kit · Ollama`

Hardware Security & Local AI Edge Deployment · Bare-metal nodes · offline voice

Bridging embedded IoT hardware and non-trivial AI software so that useful inference survives with no network at all. Self-contained hardware modules executing secure, offline voice-command processing, alongside deep-dive vulnerability assessments of the wireless protocols they sit on.

`M5StickC S3 · Embedded C++ · Local LLM · RF analysis`

Radar Sensor Data Integration · Raw telemetry → presence detection

Capturing and parsing high-frequency raw radar telemetry for ambient health monitoring, where the signal is continuous and the useful events are rare. Robust data-ingestion pipelines that translate raw sensor output into actionable presence detection and health monitoring metrics without flooding the backend.

`Radar telemetry · Python · Event-driven ingestion · Embedded Systems`

SKILLS

Languages	Python, TypeScript, JavaScript, Swift, Objective-C, Kotlin, Dart, C++, SQL
Frontend & Mobile	Flutter, React Native, SwiftUI, UIKit, Jetpack Compose, Next.js, React.js
Backend & APIs	Node.js, Django, FastAPI, Celery, GraphQL, WebSockets
AI & ML	LangChain, Hugging Face, Agent Development Kit, Pinecone, YOLOv8, TensorFlow Lite, Firebase ML Kit, Pandas, NumPy
Infrastructure	GitHub Actions, Jenkins, Fastlane, Bitrise, Docker, Firebase, AWS, Supabase, PostgreSQL
Hardware / OS	M5StickC S3, Embedded Systems, Custom ROM configuration, ADB

EDUCATION

Bachelor's in Computer Science 2019 - 2023

FAST, National University of Computer and Emerging Sciences

`Web Programming · Database Systems · Data Mining · Machine Learning · Digital Image Processing · Cloud Computing · MLOps · Statistics · Object-Oriented Programming · Data Structures and Algorithms · Mobile Development · Software Engineering`

RECOGNITION & CERTIFICATIONS

- Top Performer in Mobile and Web Development, awarded for project execution, optimization and coding proficiency.
- Machine Learning (Andrew Ng, Stanford)
- Android Development (Google Developers Certification)
- AI for Edge Devices (Udemy)
- WebRTC Integration
- Kotlin, Flutter, JavaScript and Dart (Udemy, Coursera)

TEACHING & COLLABORATION

- Mentored developers on bridging data science and mobile engineering: integrating AI/ML models into Flutter web and native Android apps.
- Ran workshops on capturing high-fidelity visual data for computer-vision tasks, and on mobile data-security practice.
- Worked with external teams to integrate XENSIV™ (including the BGT60UTR11AIP) and Stel Systems radar sensors into smart devices, with raw sensor data analysis.

VOLUNTEERING

- Organized and hosted a graphic-design competition at NASCON, with students from several universities taking part.
- Led and coordinated the Codethon programming competition at NASCON: logistics, participants and the running of the event.
- Creative Director of the largest student-run society at FAST NUCES, in charge of branding, event design and creative strategy.
- Financial Manager of the FAST Community Service Society: budgets, sponsorships and financial planning for outreach projects.