

Toluwalase Akinyemi

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PROFESSIONAL OBJECTIVE

Software engineer with full-stack ownership experience building scalable backend architectures, high-performance payment pipelines, and secure user interfaces for systems serving 400k+ users. Blends deep production expertise in distributed workflows and data integrity with a formal background in law, translating complex regulatory and compliance requirements into resilient, auditable technical systems.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, C#, SQL, Golang
Frameworks & Runtime: NestJS, Node.js, Flask, FastAPI, React.js, Next.js, .NET
Infrastructure & Tooling: Docker, Google Cloud Platform, Digital Ocean, Heroku, AWS
Data & Storage: PostgreSQL, MySQL, MariaDB, Microsoft SQL Server, MongoDB
AI-Assisted Development: Claude, Copilot, Cursor IDE

EXPERIENCE

Software Engineer

Dec 2024 – Present

Brane Technologies

Awolowo Road, Lagos

- **Assumed full backend ownership**, designing and scaling core system architecture using NestJS and TypeScript to support high-impact modules, including bill payments, donation pipelines, educational payment processors, and comprehensive admin audit logging.
- **Orchestrated application deployments and infrastructure monitoring** across multiple environments, consistently maintaining **over 99.5% production uptime** since taking over system reliability.
- **Engineered transactional WhatsApp and SMS conversational interfaces** using the Twilio API, offloading **35% of core transaction traffic** from the primary web application while boosting real-time user engagement across key workflows.

Senior Software Engineer

Nov. 2023 – Present

DCLM HQ

Gbagada, Lagos

- **Designed and owned the full backend** — architecture, database schema, and REST APIs — for a staff management portal (NestJS, PostgreSQL) centralizing records for 2,000+ employees; cut query latency 62% through index optimization.
- **Optimized data pipelines and shipped features** for a membership portal serving 400K+ users, focusing on query performance under concurrent load.
- **Contributed to the engineering of an enterprise event management platform for 100K+ users**, partnering with cross-functional developers to implement registration workflows and tracking services.

Lead Software Engineer

Mar. 2026 – Present

Genesis Technologies

Gbagada, Lagos

- **Engineered ACID-compliant inventory allocation** and movement workflows using Prisma transactions and database-level locking, eliminating race conditions during high-volume order processing and fulfillment.
- **Designed scalable background processing workflows** utilizing queuing systems and automated cron jobs to handle heavy operational tasks, bulk data synchronization, and document generation without blocking core API threads.
- **Architected a custom role-based CMS** featuring draft revision control, scheduled publishing, and on-demand ISR caching, improving editorial autonomy and public-facing web performance.

Contributor

Present

Open Source

Remote

- **Eslint:** Enhanced core documentation for ESLint, clarifying edge cases and known limitations to streamline developer adoption.
- **Script:** Implemented the Unique method in Bitfield's Script library to suppress consecutive duplicate lines in Go pipelines, complete with comprehensive unit tests and documentation updates.

PROJECTS

Ichitaka | Python, Flask, Next.js, TailwindCSS, WebSocket

[Code](#)

- Architected a **zero-knowledge, passwordless authentication system**, letting users prove their identity with cryptographic keys generated and stored client side, ensuring no credential leaves the user's device.
- Built an **AI-powered trust-and-safety pipeline** that automatically redacts personal information, anonymises faces in images, and flags tampered or AI-generated content before reports ever reach human moderators
- Shipped a **real-time engagement layer** that pushes posts, votes, threaded discussions, and notifications to every connected user instantly, with sessions that renew silently in the background.

IMockMarket | Python, Flask, React, PostgreSQL, Docker

[Code](#) | [Demo](#)

- **Designed and built the core trading engine end-to-end**, spanning multi-currency wallets, cross-currency transfers, portfolio management, and full transaction auditing, with a focus on financial accuracy and consistency under concurrent use.
- **Architected a real-time market data pipeline** integrating third-party financial APIs and WebSocket price feeds, engineered as an independent background service to deliver live price updates without impacting API performance
- **Conceived and shipped a "shadow trading" social feature** allowing users to follow other traders' market activity, built around an invite-based workflow with privacy-safe activity sharing

EDUCATION

University of the People <i>Bachelor of Science (B.Sc.), Computer Science</i>	California, USA
University of Lagos <i>Bachelor of Laws (LL.B.)</i>	Lagos, Nigeria

CERTIFICATIONS

Harvard University <i>Introduction to Computer Science (CS50X)</i>	EDX Feb 2025
META <i>Introduction to Front-End Development</i>	Coursera Oct 2023