

Joseph Okolo

Architect/Team-lead Backend Engineer

SUMMARY

Experienced Backend Developer with a strong foundation in Computer Science and over 3 years in fintech, Web3, and real estate domains. Proficient in TypeScript, NestJS, PostgreSQL, MongoDB, and blockchain tools such as Web3.js and Ethers.js. Led major projects including Bloomvest V2 migration to PostgreSQL and scalable API design, Trilla's real estate fractional ownership platform, and high-performance blockchain indexers. Skilled in modular architecture, real-time communication via WebSockets, and secure multi-role backend systems, delivering robust, scalable decentralized and centralized applications.

TECHNICAL SKILLS

Main Technical Skills	Node.js (2 yr.), NestJS (2 yr.), GraphQL (1 yr.), RESTful API (2 yr.), Web3.js (1 yr.)
Programming Languages	Go
JavaScript Frameworks	NestJS (2 yr.), Node.js (2 yr.)
JavaScript Libraries and Tools	Web3.js (1 yr.)
Databases & Management Systems / ORM	Clickhouse, MongoDB (1 yr.), PostgreSQL (1 yr.), Supabase
Cloud Platforms, Services & Computing	AWS
Amazon Web Services	AWS IAM
Google Cloud Platform	Google Docs
Virtualization, Containers and Orchestration	Docker
Version Control	Github Actions
SDK / API and Integrations	GraphQL (1 yr.), JWT, OAuth, RESTful API (2 yr.)
QA, Test Automation, Security	Jest, Mocha
Collaboration, Task & Issue Tracking	Jira, Slack
Mail / Network Protocols / Data transfer	JWT, WebSockets (1 yr.)

WORK EXPERIENCE

Engineering Lead (Backend), Bloomvest V2

Duration: September 2025 – Present

Summary:

- Fintech company building investment and wealth products, including Rebble and Bloomvest
- Hired as Engineering Lead for Bloomvest, responsible for backend architecture and delivery
- Led the launch of Bloomvest V2, overseeing major system upgrades and production rollout
- Migrated core product data from a legacy SQL database to PostgreSQL, improving data integrity and scalability
- Refactored backend codebase from plain Express
- js to NestJS, introducing modular architecture, dependency injection, and better testability
- Designed scalable APIs to support investment flows, user portfolios, and financial transactions
- Worked closely with product and frontend teams to ship stable releases and improve system reliability

Responsibilities: Led backend architecture and delivery for Bloomvest V2, migrated legacy SQL database to PostgreSQL, refactored backend to NestJS, designed scalable APIs, collaborated with product and frontend teams to ship releases and improve reliability.

Technologies: NestJS, PostgreSQL, Express.js

Backend Developer, Trilla

Duration: January 2025 – June 2025

Summary: Building Trilla, a real estate investment platform with fractional ownership, AI-powered assistance, and fiat/crypto payments.

Responsibilities: Developed backend architectures with secure multi-role support (Users, Wallets, Transactions, Agents, Admins). Architected real-time features for messaging, booking, and payments, ensuring high performance and security.

Technologies: NestJS, MongoDB, Supabase

Backend Developer, TriPay

Duration: January 2025 – June 2025

Summary: Developing TriPay, a global QR/NFC-based scan-to-pay gateway enabling fiat-crypto interoperability, featuring wallets, FX engine, and merchant APIs.

Responsibilities: Designed secure multi-role backend architectures. Developed payment and wallet modules handling fiat-crypto conversions and transaction signing.

Technologies: NestJS, MongoDB, Web3 SDKs

Web3 Blockchain Developer, Curvance

Duration: September 2023 – November 2024

Summary:

- Developed DeFi products such as Curvance, Moziac, Pike, and The Rollup, ensuring blockchain readiness and seamless functionality
- Built a blockchain indexer for Curvance, enabling faster and more reliable blockchain data retrieval



Responsibilities: Integrated blockchain SDKs (Web3.js, Ethers.js) for dApps. Built blockchain indexer. Optimized user logic, resolved technical bugs. Collaborated on backend authentication and data storage using GraphQL with Clerk. Created Studio Attendance Bot in Go.

Technologies: Web3.js, Ethers.js, GraphQL, Go, Clerk

Web3 Blockchain Developer, The Rollup

Duration: September 2023 – November 2024

Summary: Collaborated on The Rollup project, implementing a secure backend for user authentication via email/MetaMask and data storage using GraphQL endpoints with Clerk.

Responsibilities: Implemented secure backend authentication and data storage for The Rollup dApp.

Technologies: GraphQL, Clerk, MetaMask

Web3 Blockchain Developer, Studio Attendance Bot

Duration: September 2023 – November 2024

Summary: Created the Studio Attendance Bot in Go, streamlining attendance tracking for team members.

Responsibilities: Developed attendance tracking bot to improve team management.

Technologies: Go

Fullstack Developer Intern, Airdrop Checker and other products

Duration: August 2023 – September 2023

Summary:

- Addressed bugs and user-reported issues in DappLabs products, including the Airdrop Checker
- Enhanced application stability and maintained high standards for security and performance

Responsibilities: Bug fixing, application stability improvements, security enhancements.

Freelance Developer, NFT Minting Pages and Marketplaces

Duration: April 2022 – Present

Summary:

- Built NFT minting pages, NFT marketplaces, decentralized exchanges (DEXs), trading bots, and mini Telegram apps
- Delivered custom solutions for clients, including Web3 lottery apps, e-commerce APIs, and blogging platforms

Responsibilities: Designed and implemented NFT marketplaces and other Web3 applications. Delivered custom blockchain and Web3 solutions to clients.

Technologies: Web3.js, Ethers.js, Various blockchain SDKs

Freelance Developer, Wallet-based App

Duration: April 2022 – Present

Summary: Created a wallet-based app that secured 4th place in a hackathon category.

Responsibilities: Developed wallet-based blockchain app.



Freelance Developer, NFT Marketplace

Duration: April 2022 – Present

Summary: Designed and implemented an NFT marketplace that earned Judges' Pick at a Web3 hackathon.

Responsibilities: Developed full-featured NFT trading/minting platform deployed on CrossFi.

Technologies: CrossFi, NFT technologies

Backend Developer, CrossBet

Summary: Designed microservices-based backend.

Responsibilities: Designed and implemented backend microservices with NestJS, GraphQL, WebSockets, and Dockerized deployments.

Technologies: NestJS, GraphQL, WebSockets, Docker

Developer, Chatter Application

Summary: Real-time messaging app.

Responsibilities: Developed real-time messaging app backend with NestJS GraphQL WebSocket and frontend with Next.js.

Technologies: NestJS, GraphQL, WebSockets, Next.js

EDUCATION

- **Bachelor of Science in Computer Science**

Federal University of Petroleum Resources

Until 2023

