

# 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

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

