

Joseph Anyaegbunam

software | blockchain developer

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Profile

Blockchain-focused Software Developer with an MSc (Distinction) in Information Technology and strong expertise in building decentralized applications and scalable full-stack platforms. Proficient in Solidity, smart contract architecture, gas optimization, and advanced blockchain patterns (ERC20/721/1155, proxy, diamond). Skilled with Foundry for testing and deployment. Also experienced in Python and React, delivering secure, user-focused solutions rooted in a deep belief in the potential of Web3.

Education

2022 – 2023 Aberdeen, UK	Masters / Information Technology <i>Robert Gordon University</i> <ul style="list-style-type: none">• Grade: Distinction• Key Coursework: Data Visualization and Analysis, Object-Oriented Programming, Software Project Engineering, Data Management, User-Centered Design, Cyber Security.
2006 – 2011 Okada, Nigeria	BSc. / Electrical Electronics Engineering <i>Igbinedion University</i>

Skills

Languages

Python, JavaScript, TypeScript, Solidity, SQL, Java, C

Blockchain

Smart Contracts, Foundry, Hardhat, DApps, ethers.js

Data Analytics & AI

pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, LangChain, GenAI

Web Development

React, Next.js, Vue, Django, FastAPI, Node.js, Redux, Figma

Databases & Infrastructure

PostgreSQL, MongoDB, Docker, Git

Professional Experience

2024/09 – 2025/03 Lagos, Nigeria	Full Stack Developer (Volunteer) <i>Livingstone Off-the-Street Initiative</i> <p>Led end-to-end development of NGO's comprehensive platform to support at-risk youth programs.</p> <ul style="list-style-type: none">• Developed comprehensive admin dashboard using Next.js and Prisma ORM for managing beneficiaries, programs, schools, and donations• Built public-facing website enabling volunteer registration, donor contributions, and program information sharing• Architected scalable database schema and RESTful API with role-based access control and program tracking features• Implemented automated reporting tools and payment gateway integration for seamless donation processing• Created digital storytelling platform to showcase success stories and increase community engagement
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2010/03 – 2010/09
Abuja, Nigeria

Network Support Engineer (Intern)

- Installed and configured wireless antennas at client sites, optimizing alignment to nearby masts
- Provided technical support and resolved connectivity issues for residential users
- Assisted with routine mast maintenance and switch/router configuration

2012/03 – 2013/02
Lagos, Nigeria

Mathematics Teacher (NYSC)

Araromi Ilogbo Secondary School

Projects

2025/07

Smart Lottery Contract System

Decentralized, provably fair lottery system with verifiable randomness and automated draws

- Implemented Chainlink VRF v2.5 for cryptographically secure random winner selection
- Integrated Chainlink Automation for autonomous lottery draws based on time intervals
- Developed comprehensive testing suite
- Deployed and verified on Sepolia testnet with gas-optimized smart contracts

2025/06

Diamond Storage Subscription Proxy

Upgradeable subscription system using diamond storage patterns and proxy architecture

Tech: Solidity, Foundry, Proxy Patterns, OpenZeppelin

- Implemented custom proxy pattern with diamond storage for gas-efficient state management
- Built subscription management with pause/resume and withdrawal refund features
- Created comprehensive test suite with fuzz testing and upgrade state validation

2024/12

Learning Management System

A full-featured platform for creating, managing, and delivering online courses.

Technologies: Next.js, TypeScript, Prisma, PostgreSQL, Tailwind CSS, Mux

- Designed and implemented course creation, video upload/streaming, and progress tracking
- Developed user authentication, role management, and a responsive UI for instructors and learners
- Integrated Mux for seamless video delivery and optimized frontend with Tailwind

2025/02

Crowdfunding Decentralized Application

A full-stack dApp for creating and managing crowdfunding campaigns on the Ethereum blockchain, enabling secure and transparent fundraising without intermediaries.

Technologies: Next.js, TypeScript, Solidity, Tailwind CSS, IPFS, MetaMask, React Hook Form

- Implemented gas-optimized smart contracts for campaign creation, flexible withdrawals, and donor verification.
- Built a responsive multi-step campaign form with validation and decentralized image storage using IPFS
- Created a user dashboard with campaign tracking and management features

2023/08

My MSc. Final Project: DiscussU

A collaborative platform enabling students to engage in structured academic discussions and knowledge sharing, demonstrated as my MSc. project.

Technologies: Django, Django Rest Framework, React, Bootstrap, Zustand, Knox

- Built interactive discussion rooms with topic-based threads and real-time participation
- Implemented RESTful APIs for discussions, notifications, and user profiles
- Added content moderation, follower functionality, and personalized discussion tracking