

Johnson Afuye

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Senior Software Engineer | Node.js • React • Python • GCP | FinTech & Climate Tech

PROFESSIONAL SUMMARY

Senior Software Engineer with 5+ years of ownership-level impact across **FinTech and AI-driven platforms**. Expert in **Node.js , React, Python and GCP**, with a track record of architecting resilient microservices, high-throughput financial data pipelines, and compliance-grade backend systems in regulated environments. Experience operating at the intersection of distributed systems and financial reliability.

SKILL SUMMARY

- **Languages:** Typescript, Javascript, Python, SQL, Bash.
- **Backend:** Nodejs, Nestjs, Expressjs, FastApi, Django.
- **Frontend:** React, Nextjs, Vue.js, React-Native
- **Architecture & API:** Microservices, RESTful APIs, GraphQL, Event-Driven Architecture (RabbitMQ, Kafka).
- **Databases & ORMs:** PostgreSQL, MongoDB, Drizzle ORM, Redis.
- **CI/CD & DevOps:** Google Cloud Platform (GCP), Microsoft Azure, Kubernetes (K8s), Docker, Jenkins (CI/CD), Spinnaker, Git
- **Testing:** Nestjs-testing, Jest, Pytest, Supertest, Playwright,
- **Specialized Tech:** Data Engineering (ETL/ELT), Blockchain Technologies, PCI-DSS Compliance

EXPERIENCE

- **Carbon Instinct.** (London, Uk) — Senior Software Engineer (Full-time, Permanent) Jan 2025 - Present
 - **High-Throughput Data Ingestion Pipeline:** Engineered an **ETL pipeline** that ingested and transformed **16M+** unstructured LCA entries with zero data loss, using atomic transactions, idempotent processing and real-time **observability** to guarantee reliability and auditability at scale.
 - **Product Lifecycle Calculation Engine:** Architected the core Product System Service, a **NestJS-backed** calculation engine using a **node-edge** graph model to compute and visualise the environmental impact of complex, multi-stage product lifecycles. Designed for extensibility across product categories without structural changes to the engine.
 - **Multi-Level Emissions Analytics Platform:** Built a multi-level analytics dashboard enabling companies to track emissions across their full operations, from **company-wide** aggregates down to individual process level data, with **drill-down** navigation designed for non-technical enterprise users.
 - **Platform Reliability & Infrastructure as Code:** Managed mission-critical production services on GCP with Kubernetes orchestration. Established rigorous **CI/CD** pipelines using **terraform** for full infrastructure-as-code coverage, reducing deployment cycle time by **60%** while maintaining **99.9%** uptime across all production services.
- **Dexpay Inc.** — Software Engineer (Full-time, Permanent) Nov 2023 - Dec 2024
 - **Decentralised Finance Backend Architecture:** Designed and implemented the backend architecture for Dexpay, a decentralized finance platform, using **Nestjs**, **PostgresSQL** and **RabbitMQ**. Decomposed core financial flows into autonomous microservices with clear domain boundaries, delivering high throughput APIs with consistent reliability across payment and settlement operations.
 - **Real-Time intelligence Dashboard:** Built a dynamic **Next.js** back-office dashboard for sales, marketing, and operations teams, replacing manual reporting with live trade volume, user activity, and revenue visualisation. Designed for non-technical stakeholders and directly drove measurable **growth** in trade volume.
 - **Event-Driven Payment Processing Pipeline:** Built **Kafka-backed** event pipelines for blockchain transaction processing and integrated **Web3.js** for on-chain data synchronisation, enabling real-time analytics, guaranteed event delivery, and data consistency across distributed financial systems.
 - **Observability and Incidence Response:** Led a platform-wide observability initiative, implementing structured monitoring dashboards and business-aware alerting systems tied to payment success rates. Reduced **MTTR** by **50%** through improved telemetry and proactive issue detection before user impact.
- **TeamCoach** — Software Engineer (Full-time, Permanent) May 2022 - Oct 2023
 - **Freemium Growth Architecture:** Led end-to-end development of a new freemium tier in **Node.js** and **React**, grounded in user behaviour analysis to identify the highest-conversion feature set. Delivered a **20%** increase in paid subscriptions within the first quarter of launch through a permission-layer architecture with in-product upgrade flows.

- **Feature Flag Infrastructure:** Built a **data-driven** feature flag system supporting **targeted** rollouts by user segment, subscription plan, and percentage cohort. Enabled the product team to validate new features against live user behaviour before full release, materially reducing rollback risk.
- **TanStack Query Migration:** Led a full codebase migration from React-Redux to TanStack Query for all server states, eliminating **manually** managed loading and error states, enforcing a **clean separation** between server and client state, and reducing boilerplate for new features by over **60%**.
- **Interswitch** — *Software Engineer (Full-time, Permanent)* *Jan 2020 - Apr 2022*
 - **Reporting Engine Overhaul:** Contributed to the revamp of the Extraswitch reporting engine using **Java/Spring Boot** and Apache Spark. Optimised SQL query execution and introduced **parallel** processing pipelines, cutting **T+1** settlement report generation from **30** minutes to under **10** minutes across more than **50** commercial banks..
 - **High-Availability payment processing Platform:** Developed the **React** frontend for a distributed, multi-region payment processing system, implementing **WebSocket** connections for real-time transaction status updates and building RESTful API integrations across regional deployments with consistent data presentation under distributed network conditions.
 - **PCI-DSS Compliant Payment Rail Integration:** Designed **secure** payment gateway integrations meeting **PCI-DSS** compliance requirements, implementing **tokenisation**, encryption, rate limiting, and structured error handling across payment rails. Improved transaction completion rates by **15%** and produced the first integration to pass compliance review on first submission.

EDUCATION

- **Masters — Data Science and Artificial Intelligence** 2023 - 2024
EdgeHill University *United Kingdom*
- **Bachelor of Science - Industrial Chemistry** 2013 - 2018
University Of Benin

AWARDS & CERTIFICATIONS

- **Winner** - Lisk Onchain Spring Hackathon — May 2024
- **Winner** - *API3 Encode X Lightlink Gasless Hack* — February 2024
- **First Runner Up** - Consensys Web3 Innovation (NAVH) — September 2023
- Lean Six Sigma Yellow Belt — November 2022
- Scrum Fundamental Certified — January 2022