Wilfrid Okorie

Backend Software Engineer

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SUMMARY

Backend-focused software engineer experienced in designing and building backend systems, distributed services, real-time applications, and production APIs. Has led backend development from architecture through deployment, with work spanning authentication, third-party integrations, streaming pipelines, background workers, caching, computational services, and AI integrations. Strong TypeScript/Node.js foundation with additional experience building backend systems in Rust and Python.

TECHNICAL SKILLS

Languages: TypeScript • Rust • Python • JavaScript

Backend: Node.js • Express.js • NestJS • Axum • FastAPI • REST APIs

Frontend: Next.js • React.js • Tailwind CSS • HTML5 • CSS3

Data & Messaging: PostgreSQL • Redis • SQLite • Server-Sent Events (SSE)

Cloud & Infrastructure: Docker • AWS • Linux • Git • CI/CD

Architecture: Distributed Systems • API Design • OAuth • JWT • Background Workers • Event-Driven Systems • Caching • Performance Optimization

EXPERIENCE

Backend & Technical Lead | Intell **2026 – Present**

Intell is a cloud platform that converts telemetry from solar inverters into actionable insights for commercial solar installations.

- Led backend architecture and implementation for a real-time IoT monitoring platform integrating cloud APIs from smart solar inverter providers.
- Designed authentication and onboarding workflows including OAuth integrations, OTP verification, session management, and secure API access.
- Replaced client polling with a real-time streaming pipeline, reducing repeated third-party API requests as connected clients scaled.
- Built anomaly-detection and alerting workflows over live telemetry and integrated an AI-powered operational assistant with domain-specific backend tooling.
- Owned backend delivery across technical design, API contracts, code review, testing, CI/CD, deployment, and engineering mentorship.

Software Engineer | Offmark Ltd. **2026 – Present**

Offmark is a fashion technology startup building digital fashion design and demand-driven fashion commerce products. Currently developing Seam, its digital fashion design platform.

- Designing and implementing Seam's multi-service backend across Rust, Python, and TypeScript, separating services around distinct computational and application workloads.
- Building Seam's core backend in Rust, implementing computational geometry and garment-processing functionality including digital patternmaking operations, TPS deformation, and vertex triangulation.
- Developing a Python avatar service that transforms user body measurements into specifications used by the frontend to construct personalized digital avatars.
- Translating domain-specific fashion and patternmaking workflows into software requirements, studying patternmaking principles to model garment construction concepts accurately.
- Designing service boundaries and APIs across computational geometry, avatar generation, and application-facing components.
- Building Offmark's commerce website backend in TypeScript while also implementing the Next.js/React user-facing frontend.

Frontend Web Developer | Genti Media Technology **2024 – 2025**

Genti is an audio media platform focused on African stories, educational content, languages, and voices.

- Led the migration of the production creator portal from React to Next.js, improving maintainability and application structure.
- Collaborated with backend engineers to design and integrate production APIs and shipped features across multiple releases.
- Resolved critical production issues on a live platform and independently maintained and extended the creator-facing codebase.
- Used Amplitude and Mixpanel analytics to identify user behaviour patterns that informed product improvements.

SELECTED PROJECTS

Distributed Background Job Scheduler | Node.js · Express.js · PostgreSQL · Redis · TypeScript

Built a background job processing system with independent workers, priority scheduling, dependency DAGs, retries with exponential backoff and jitter, dead-letter handling, and real-time monitoring. Implemented interchangeable Binary Heap and Skip List schedulers behind a shared interface, with PostgreSQL and Redis coordinating worker execution and state.

Insighta Labs+ | Node.js · Express.js · PostgreSQL · Redis · TypeScript

Built a demographic intelligence platform with advanced filtering, rule-based natural-language query parsing, OAuth, RBAC, caching, and performance optimization. Reduced P95 latency from 1200 ms+ to approximately 230 ms through composite indexing, Redis caching, connection pooling, and canonical query normalization.

Retry Engine | Node.js · SQLite · TypeScript

Built a resilient outbound-request service with persistent retry history, background execution, exponential backoff with jitter, failure classification, and dead-letter handling for asynchronous HTTP workflows.

EDUCATION

B.Eng. Mechatronics Engineering | Federal University of Technology Owerri | 2025

First Class Honours • GPA: 4.70/5.00 • Rank: 1st of 99

REFEREES

- Adeleke, Abiodun Abdul-quadri**:** LinkedIn
- Kevin Chibuoyim: Twitter
- Emmanuel Momoh: LinkedIn