Jude Ndubuisi
Rust Backend / Systems Engineer
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Professional Summary

Rust Backend / Systems Engineer experienced in building production services and systems using Rust, Tokio, Axum, Hyper, Tower, SQLx, and PostgreSQL. Experienced in asynchronous and concurrent systems, network programming, backend architecture, database systems, background workers, and production infrastructure. Built Rust services ranging from payment backends to low-level networking software, with a strong focus on correctness, performance, reliability, and maintainability.

Education

- **Turbin3 Foundation** — Remote
  Solana Builders Programme — *Q1 2025*
- **ALX Africa** — Remote
  Software Engineering Programme — *2023 – 2024*
- **Federal Polytechnic Oko** — Anambra, Nigeria
  Diploma in Mechanical Engineering — *2016 – 2018*

Technical Skills

- **Rust**: Rust, Tokio, Axum, Hyper, Tower, SQLx, async/await, concurrency
- **Backend**: REST APIs, middleware, webhooks, background workers, asynchronous processing
- **Systems**: TCP/IP, networking, packet parsing, state machines, concurrent systems
- **Databases**: PostgreSQL, MySQL, Redis, SQL
- **Infrastructure**: Docker, AWS, GCP, Railway, Cloudflare, Linux
- **Other Languages**: TypeScript, Python, JavaScript
- **Tooling**: Git, Prometheus, Grafana, Postman

Experience

- **Sendryx**
  Founder & Lead Backend Engineer — *February 2026 – Present*
  - Founded and operate a production backend platform processing $15K+ in transaction volume across 30+ active users.
  - Migrated the backend from NestJS to Rust using Axum, Tokio, SQLx, and PostgreSQL, replacing the previous TypeScript service architecture with a strongly typed asynchronous Rust backend.
  - Designed asynchronous workers and background processing systems for transaction processing, blockchain monitoring, settlement, and webhook workflows.
  - Implemented database-backed transaction state management, PostgreSQL migrations, concurrency controls, and reliability mechanisms for payment-critical operations.
  - Integrated Solana and Ethereum transaction infrastructure with Rust backend services for wallet operations, transaction tracking, and settlement workflows.
  - Managed production deployments, infrastructure, monitoring, performance optimization, and operational debugging.
- **TryOctopus**
  Backend Engineer — *June – September 2025*
  - Designed and implemented backend services using NestJS and MySQL for transaction processing and blockchain-backed payment workflows.
  - Integrated Solana and Tron blockchain transactions into asynchronous backend processing pipelines.
  - Implemented transaction validation and authentication mechanisms for secure on-chain workflows.
  - Optimized API performance and database operations and performed production infrastructure maintenance.

- **AbstractRoomies**
  Backend Engineer *January – June 2025*
  - Designed and implemented Node.js and Express backend services supporting application and blockchain workloads.
  - Built Web3 integrations and backend workflows for reliable on-chain interactions.
  - Optimized API performance and backend reliability across application services.

Systems / Rust Projects

- **TCP Rust** Implemented a TCP/IP stack from scratch in Rust using a TUN device, including raw packet parsing, three-way handshake, connection tracking, TCP state transitions, and RFC 793 protocol handling.
- **Hyperforge** Built an asynchronous Rust HTTP API using Hyper, Tower, and SQLx with PostgreSQL persistence, middleware, CRUD APIs, health checks, and metrics endpoints.
- **BookVault** Implemented backend microservices using Django REST Framework with separate user and admin APIs communicating through message queues.
- **Postly** Built a production-deployed backend API using Node.js, Prisma, and PostgreSQL.

Certifications

- **Turbin3 Builders Programme** – Solana ecosystem.
- **Software Engineering** – ALX Africa.