

Femi Olatubosun

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PROFESSIONAL SUMMARY

Backend Engineer with a strong generalist range -- fintech, AI infrastructure, marketplace, and real estate systems. I specialize in the engineering fundamentals that scale: system architecture, developer tooling, and code quality patterns that make teams ship faster and break less. I take end-to-end ownership from schema design to production infrastructure.

SKILLS

Languages: TypeScript (primary), Python

Backend: NestJS, HonoJS, AdonisJS, Prisma, PostgreSQL, Redis, BullMQ

Infrastructure: GCP, AWS, Pulumi, Cloudflare, Docker, Self-hosted (Linux, Coolify)

Observability: OpenTelemetry, Sentry, Prometheus, Grafana, Betterstack, SigNoz

AI / LLMs: OpenAI, Anthropic Claude, Google Gemini, RAG

Testing: Jest, Testcontainers, Docker Compose (E2E)

EXPERIENCE

HotSpotsBeauty | Nov 2025 - Present

Senior Backend Engineer | TypeScript

- Architected a NestJS modular monolith across 82 database models and 25 BullMQ queues -- handling bookings, wallet payments, real-time chat, social feed, and content processing.
- Designed a double-entry ledger system with distributed Redis locking, row-level DB locking, and idempotency guarantees across payments, payouts, refunds, and tips -- with a dedicated PaymentIdempotencyRecord table and unique constraints enforced at the DB layer.
- Implemented a payout saga with two-phase commit -- Phase 1 deducts wallet balance atomically, Phase 2 calls Paystack; compensation transaction restores balance on failure.
- Built an appointment state machine processor (345 action classes, 10 status transitions) scheduling 5 reminder jobs per booking with unique BullMQ job IDs for deduplication.
- Engineered Typesense search with distributed locking for batch reindexing -- geospatial filtering, availability windows, and dynamic pricing discovery across services, businesses, combos, and reels.
- Built full observability stack with OpenTelemetry trace propagation through BullMQ jobs, Prometheus metrics, Sentry profiling, and daily Slack operational reports.
- Implemented a circuit breaker strategy with Cockatiel across Paystack, Firebase FCM, and Slack -- with Prometheus-instrumented breaker state events.
- Provisioned full production infrastructure via Pulumi -- GCP Cloud Run (max 10 instances, concurrency 80), Supabase PostgreSQL, Upstash Redis, Cloudflare R2, and GCP Secret Manager -- with a 4-job CI/CD quality gate.
- Wrote 146 unit tests and 8 E2E test suites with isolated per-worker test databases and Testcontainers-backed infrastructure, covering auth, booking, wallet, discovery, and feed flows.

Bexxle Technologies | May 2025 - Nov 2025

Senior Backend Engineer (Consulting)

- Shipped autonomous lead generation system generating 2k+ leads/day using agents for multi-step prospect research and scoring, cutting manual work by 80%.
- Built AI web scraping pipeline -- LLM-guided extraction converting unstructured pages into structured contact data with 95% classification accuracy.
- Delivered multi-model AI infrastructure -- OpenAI and Gemini integration with automatic failover and cost optimization for production lead generation.
- Architected RPC-style mono-repo using Hono, Zod, Prisma, and BullMQ with shared packages across API, workers, and modules.
- Built AI co-pilot for Product Managers on Cloudflare Workers with sub-100ms response times.
- Designed edge-cached API layer using Cloudflare D1 and Cache API reducing database load by 70%.

Wander | May 2024 - May 2025

Product Engineer | TypeScript

- Built Stripe payment integration with ACH bank account support -- instant verification via Financial Connections, idempotency-keyed payment intents, fraud alerting via Stripe Radar (risk score ≥ 20 -> Slack), and checkout sessions capped at 24h or invoice due date.
- Implemented AI task scheduling using GPT-4o-mini with structured output -- injected urgency tiers, booking constraints, and vacancy windows into the system prompt; validated AI-generated dates against real availability before applying.

- Built a queue-based workflow automation engine -- fan-out runner spawning per-unit jobs for every workflow, with frequency-based cron execution and ON_CHECKIN/ON_CHECKOUT booking lifecycle triggers.
- Engineered video processing pipeline using FFmpeg and Cloudflare Stream -- chunked multipart uploads to R2, dynamic thumbnail timestamps by file size (<=50MB -> 2s, else 5s), PNG + WebP thumbnails via Sharp, ThumbHash generation, and batch sync cron (120 videos/run).
- Integrated National Weather Service API for real-time emergency alerts -- deduped by alert ID and event name, Redis-cached per-unit for 23h, filtered to Extreme/Severe severity, and routed to property-specific Slack channels with 1s throttle between sends.

ZeroComplex AI | Jan 2023 - Apr 2024

Team Lead, Backend Engineer | TypeScript

- Joined as first engineering hire with founding-team scope -- contributed to investor pitches, hiring decisions, team structure, and engineering culture alongside the CTO/CPO.
- Built ChurchAI: a RAG-based conversational AI product -- secured company's first paying customer.
- Built Doculess: agent-powered document extraction product -- company's first MVP.
- Built CMMA CLI -- a code generation tool for AdonisJS modular monolith architecture, enforcing structural consistency and accelerating developer velocity across the team.
- Led team of 4 backend engineers across the full product lifecycle.
- **Akiba (Crenet Tech Labs, sister company) | Lead Backend Engineer, Apr - Sep 2023:**
 - Architected a fintech investment and bill payments platform across 45 models and 80 migrations;
 - integrated 6 financial providers (Paystack, Providus, Interswitch, Bloc HQ, Dojah, Firebase) via a swappable factory pattern
 - Built duplicate transaction guards, Providus withdrawal retry logic across 24 response codes, and a financial cron scheduler covering savings charges, payouts, and cashback auto-transfer.

Pramie Tech | 2022

Backend Engineer | Django, Python -- early-career role focused on building REST APIs and shipping core product features.

PROJECTS

Veritas Social (veritassocial.org)

Student career network (Nigeria). Consulted on architecture and shipped two features on an Express + Python stack: an AI bug-tracking agent where users DM an in-app agent to file bugs, tickets auto-post to Slack, and users are notified on resolution; and an event-driven persona engine where customizable AI personas autonomously post, reply, and engage based on platform events (post created, comment added, etc.), driving organic activity at scale.

CMMA CLI (github.com/femitubosun/cmml-cli)

Open-source code generation CLI for AdonisJS modular monolith architecture. Enforces structural conventions and scaffolds modules, migrations, models, and controllers -- built to eliminate repetitive setup and enforce consistency across engineering teams.

EnvGuardian (github.com/femitubosun/EnvGuardian)

Lightweight Python library for environment variable validation -- validates presence, type, and format of env vars at startup, failing fast with clear error messages before the application reaches runtime.

RPC Monorepo Template (github.com/femitubosun/rpc-monorepo-template)

Open-sourced the monorepo architecture pattern from Bexxle -- HonoJS, Zod, Prisma, and BullMQ with shared packages and RPC-style type-safe API contracts out of the box.

Akiba (akibatribes.com)

Open-sourced the monorepo architecture pattern from Bexxle -- HonoJS, Zod, Prisma, and BullMQ with shared packages and RPC-style type-safe API contracts out of the box.

EDUCATION

B.Sc.(Ed.) Computer Science -- Ajayi Crowther University, Nigeria

Summa Cum Laude