

DANIEL UDE

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SUMMARY

Backend engineer, 4+ years in Python and FastAPI — multi-tenant SaaS, real-time systems and distributed job processing, owned end to end from schema design through production maintenance. I build for the failure path: tenant isolation enforced at the dependency layer, circuit breakers and retries around third-party calls, and 248 passing tests run against live PostgreSQL and Redis in CI on my largest system. Also ship on-chain backends — EIP-712 signed mandates, Solidity and Stellar escrows — and teach this stack to cohorts of 40 developers.

EXPERIENCE

Software Developer & Technical Facilitator — SBTS Technology Limited, Lagos

Mar 2026 – Present

- Build the production-shaped reference systems the curriculum is taught from — a job-recruitment platform spanning candidates, employers, applications, interviews and administration, and a multi-vendor e-commerce marketplace — covering API design, relational modelling, auth and delivery.
- Design and deliver backend engineering training in Python, REST APIs, SQLAlchemy, PostgreSQL and Git to cohorts of 40 developers; author and maintain the curriculum at github.com/dannyude/ICBM-Technical-Bootcamp-Cohort-Two.
- Run hands-on code review across every cohort project, holding teams to readable structure, migrations over ad-hoc schema changes, and tests that cover the failure path.

Backend Engineer (Contract) — Tenece Services Ltd, Lagos

Feb 2025 – Feb 2026

- Designed and shipped the crash-tracking service for Nautical Fury, a live game — capturing forced closes and crashes from both code errors and graphics overload, with enough context for the team to reproduce and fix them instead of working from second-hand user reports.
- Built the real-time event ingestion pipeline on FastAPI and Celery, processing crash events, uncaught exceptions, API request failures and performance anomalies through a distributed, event-driven architecture — surfacing live production faults as they happened rather than waiting for players to report them.
- Owned the service end to end — system design and database architecture through implementation, deployment and production maintenance.

Freelance Backend Developer

Dec 2021 – Mar 2025

- Built and maintained REST APIs and backend services for 15 clients across software and technology projects using Flask, FastAPI, SQLAlchemy and PostgreSQL — data modelling, business logic and third-party integrations.
- Wrote database and automation scripts for data processing and operational workflows; diagnosed and resolved defects across existing client codebases.

SELECTED PROJECTS

PatStat — Multi-Tenant Clinical Status Platform

Apr – May 2026 · github.com/dannyude/Pat-Stat

Python, FastAPI, PostgreSQL, Redis, Celery, WebSockets, Firebase Cloud Messaging

- Built a real-time clinical backend: staff update patient state and families are notified the moment it changes, over WebSockets and FCM with Celery handling asynchronous fan-out.
- Enforced strict multi-tenant isolation — every hospital runs in its own tenant context and every access path re-checks that boundary, because in healthcare a leaky query is a breach, not a bug.
- Carries 248 passing tests across 30 suites and 12 migrations, executed in CI against live PostgreSQL and Redis service containers on every push.

Intentra — On-Chain Payment Assurance (ETHOnline 2026)

2026 · Web3

FastAPI, PostgreSQL, EIP-712, Solidity escrow (Arc testnet), The Graph

- Owned the backend for a four-person hackathon submission, having never written Web3 before that weekend: a FastAPI modular monolith that orchestrates escrowed payments and never holds funds itself.
- Tied every payment to a human-signed EIP-712 mandate, with USDC held in a Solidity escrow and delivery evidence hashed and anchored on-chain.
- Committed money state on chain events only — the API requests, an event watcher applies — with a single-writer state machine enforced by an AST scan in the test suite, plus idempotency keys, an outbox and a reconciliation pass.

DocFlow — Multi-Tenant LLM Document Extraction

Mar 2026 · github.com/dannyude/DockFlow_API

Python, FastAPI, PostgreSQL, Redis, Celery, S3/MinIO, LLM

- Built a multi-tenant SaaS backend accepting PDF, image and DOCX uploads, returning schema-driven structured JSON by asynchronous polling or webhook callback.
- Designed a map-reduce extraction pipeline that splits documents past the model's context window, processes chunks independently and merges the results.

- Made third-party model calls survivable: circuit breaker, three retries with exponential backoff and a JSON-repair fallback, so a single timeout cannot strand a job; Redis Bloom filters reject duplicate uploads before they cost anything.

Puente — Naira ↔ USDC Agent Escrow on Stellar

Sep 2026 · Web3

FastAPI, PostgreSQL, Stellar, Next.js

- Built a peer-to-peer exchange where neither side sends first: each agent's USDC sits in a Stellar escrow the server controls, released only once the counterparty confirms payment offline.
- Published a public, sign-in-free solvency page showing live escrow reserves against agent liabilities, every settled order linked to its on-chain transaction.

Medication Reminder API — Healthcare Notification Service

Jan – Feb 2026 · github.com/dannyude/medication-reminder-api

Python, FastAPI, PostgreSQL, Celery, JWT/OAuth2, Docker

- Built an asynchronous medication-adherence API with intelligent scheduling, cron-driven reminder dispatch and multi-channel notifications on Celery.
- Security-first design: JWT rotation with real session management, Redis-backed rate limiting, Google OAuth and bcrypt hashing; containerised with a GitHub Actions deploy workflow.

WRITING

- Author of a free three-volume system design guide — 70 pages, 30 diagrams, Python throughout — following one photo-sharing app from a \$10 server to a sharded, replicated, cached system, adding each component at the moment the app breaks without it. Published CC BY 4.0.
- Technical writing on backend architecture, including a Medium article on real-time communication that compares long polling, Server-Sent Events and WebSockets with working FastAPI implementations.

EDUCATION

Diploma in Backend Engineering — AltSchool Africa

2024 – 2025

Bachelor of Laws (LL.B.), Second Class Upper — Enugu State University of Science and Technology

2016 – 2021

TECHNICAL SKILLS

Languages: Python, SQL

Backend: FastAPI, Flask, async SQLAlchemy 2.0, Pydantic v2, REST API design, WebSockets, Celery, event-driven architecture, multi-tenancy

Data & Infra: PostgreSQL, Redis, Alembic, Docker, Docker Compose, S3/MinIO, Nginx, Git, GitHub Actions (CI/CD), Linux

Blockchain: EIP-712 typed signing, Solidity escrow integration, on-chain event watchers, The Graph, Stellar SDK

Practices: Multi-tenant isolation, JWT/OAuth2 with rotation, RBAC, bcrypt, rate limiting, idempotency, circuit breakers, pytest, structured logging & monitoring