Fabrice Azonhin

Software Engineer | Backend & Full-Stack

Python | FastAPI | TypeScript | Next.js | PostgreSQL | Docker

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PROFESSIONAL SUMMARY

Bilingual French-English software engineer focused on backend and full-stack development, with hands-on experience designing, developing, testing and deploying web applications, including SaaS products, marketplaces and business applications built with Python, FastAPI, TypeScript, Next.js and PostgreSQL. This is complemented by a professional background in IT operations and technical support since 2018. Experienced in API design, data modeling, authentication and role-based access control, multi-tenant and transactional workflows, automated testing and Docker-based deployment. Comfortable taking features from business requirements and architecture through implementation, debugging, testing and production operations, working independently or as part of a team.

TECHNICAL SKILLS

Backend: Python, FastAPI, SQLAlchemy 2, Pydantic, REST APIs, Celery, WebSockets
Frontend: TypeScript, Next.js, React, Tailwind CSS
Data: PostgreSQL, Redis, Prisma, MongoDB, Alembic
Architecture & Security: RBAC, Multi-tenancy, Authentication & Authorization, Secure Sessions, JWT, CSRF, Idempotency, Audit Trails
Infrastructure & Quality: Docker, Docker Compose, Nginx, Linux VPS, Cloudflare, R2, GitHub Actions, pytest, Vitest, React Testing Library, Playwright

SELECTED ENGINEERING PROJECTS

Restau Africa | Founder / Product Engineer

Aug 2026 – Present

Own product, independent development · *Multi-tenant restaurant ordering SaaS · MVP deployed at restau.africa · Next.js, TypeScript, Prisma, PostgreSQL, Better Auth*

- Designed and delivered an MVP where each restaurant is an isolated tenant with its own subdomain storefront, branding, menu, delivery/pickup ordering and order tracking.
- Implemented wildcard-subdomain routing, role-based access, Cloudflare R2 image uploads, QR flows and structured WhatsApp order links.
- Engineered server-side logo color extraction with Sharp, including suggestions, preview and explicit acceptance while preserving manual brand colors through conservative migration logic.
- Deployed on Ubuntu with Docker Compose, Nginx and Cloudflare wildcard DNS/TLS; recent verification reported 568 passing tests with one existing skip.

OPaFED Marketplace | Full-Stack / Product Engineer

Jun 2026 – Present

Client project, part-time · *Multilingual (FR/EN/PT) marketplace for women entrepreneurs · FastAPI, Next.js, PostgreSQL, Redis, Celery, FedaPay*

- Architected and delivered an end-to-end marketplace with 4 roles covering seller onboarding, shops, catalogs, orders, stock reservation, payouts, refunds, notifications, reports and exports.
- Designed a secure, server-authoritative FedaPay payment integration with verified, idempotent webhook processing.
- Implemented concurrency-safe inventory and payout handling in PostgreSQL, with idempotent operations and an auditable financial ledger with reconciliation.
- Evolved the schema through 39 Alembic migrations; verified 310 backend + 100 frontend tests, zero TypeScript errors, zero ESLint issues and a successful 182-page Next.js build.
- Ran the stack in an isolated Dockerized staging environment for validation and security hardening.

Grace Vine Schools | Product / Full-Stack Engineer

Sep 2026 – Present

Volunteer software development, part-time · *Bilingual EN/FR school-management PWA · Next.js, TypeScript, FastAPI, SQLAlchemy 2, PostgreSQL, Alembic, Docker*

- Designed a school-management platform covering authentication, user administration, school settings, academic years, class levels, public admissions, document review, payments and student finance.
- Designed a fine-grained role-based access-control model that separates system administration from business permissions.
- Implemented secure server-side sessions, CSRF protection, modern password hashing and backend-enforced authorization; built validated, integrity-checked document uploads.
- Improved reliability through strict test-database isolation, CORS/CSRF regression coverage and permission/migration fixes; the admissions/document phase reached 35+ backend tests.

Quiz Generator — Hacklift | Full-Stack Engineer

2025 – Present

Collaborative team project · *EdTech product supporting quiz generation, live sessions, user profiles, analytics and learning workflows*

- Owned full-stack delivery of authentication, profile management and live quiz features across API, client and database layers.
- Developed login, logout, email verification and password reset workflows, plus user profile management.
- Built live quiz management for creator and participant experiences; strengthened ownership and access-control behavior.
- Implemented server-derived persona analytics and product-event tracking, contributing to daily, weekly and monthly reporting.
- Delivered live-session exports in CSV, PDF and text formats; contributed to code review, debugging and regression analysis.

SafeCircle | Backend Engineer

Apr 2026 – May 2026

Hackathon project · *Safety and incident-response platform · Africa Ignite Hackathon (GSMA / Nokia Network as Code / CAMARA)*

- Built FastAPI/PostgreSQL services for incident creation and lifecycle management, organization-scoped RBAC, live location tracking and asynchronous response orchestration using Redis, Celery and WebSockets.
- Designed graceful degradation so critical incidents remain persisted and processed when external provider calls fail, with fallback behavior for network/location and delivery dependencies.
- Contributed to the backend integration layer supporting 7 CAMARA network APIs alongside a CAMARA-specialist teammate.
- Debugged Alembic divergent heads, Docker restart issues and mobile/backend integration via development tunnels.

RCCG Convention Registration | Full-Stack / Technical Owner Jun 2026 – Sep 2026

Internal organization project (RCCG) · *Production registration platform · FastAPI, SQLAlchemy, Alembic, TypeScript, Docker Compose, Linux VPS*

- Developed and maintained public registration, participant data, document/photo workflows, boarding points, multiple programs and an admin registration control center.
- Delivered reconciliation functionality spanning a database migration, backend service, automated test and administrative UI component.
- Handled production operations including Docker builds, VPS deployment and TLS troubleshooting with Certbot / Let's Encrypt.

PROFESSIONAL EXPERIENCE

IT Support | The Redeemed Christian Church of God 2018 – Present

Part-time

- Supported internal applications, diagnosed IT/application issues and assisted and trained users.

Web Developer | ACG Academy 2018 – 2025

Part-time

- Built and maintained WordPress websites.

IT Systems Manager | ONG Papyrus Bus, Godomey, Benin 2023 – Jun 2024

Part-time

- Coordinated data-management processes and trained staff on Microsoft Office and Google Workspace; provided IT support.

EDUCATION

Bachelor's Degree in Computer Systems & Software | ESGT-Bénin 2021

BTS in Information Systems Management 2017

LANGUAGES

French — Professional fluency | English — Professional fluency | Also: Fon, Yoruba