

YOUSSEF BELHADJ

Senior Full-Stack Product Engineer · AI SaaS · TypeScript · Next.js · Node.js · PostgreSQL · Docker · Flutter

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PROFESSIONAL SUMMARY

Senior full-stack product engineer with 4+ years of experience building complete, production-ready systems from architecture through deployment. Proven track record delivering AI-enabled SaaS products, ERP/accounting platforms, school management APIs, mobile applications, fintech backends, and containerized cybersecurity training environments — spanning 36-model ERPs to 43-endpoint OpenAPI backends. Uniquely capable across the full product lifecycle: backend architecture, database design, REST APIs, frontend dashboards, mobile development, AI integrations, Docker infrastructure, and security engineering.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, Dart, SQL, Shell, Ruby, PHP

Frontend: Next.js 15/16, React 19, Tailwind, Radix UI, shadcn, GSAP

Databases: PostgreSQL, Prisma, Drizzle, SQLAlchemy/Alembic, Redis, pgvector, MinIO/S3

DevOps: Docker, Docker Compose (multi-stage, health checks, workers), CI/CD

Testing: Jest, Vitest, Playwright, Supertest, Pytest, Flutter integration tests

Backend: Node.js/Express, Fastify, FastAPI, Django REST, Hono, Bun

Mobile: Flutter, Riverpod, Firebase, WebSockets, local caching

AI/LLM: Google Gemini, Vertex AI, OpenAI API, LLM integration & automation

Cloud: AWS (EC2, S3, ECS/Fargate, RDS, Lambda, ElastiCache), GCP, Cloudflare R2

Security: OWASP, SQLi/XSS/SSRF/IDOR, Kali Linux, CTF environments, Docker labs

SELECTED PROJECTS

Hesabi — Tunisian ERP / Accounting SaaS | [Next.js 16](#) · [React 19](#) · [TypeScript](#) · [Prisma](#) · [PostgreSQL](#) · [Docker](#) · [PWA](#)

- ▶ Architected a full-featured Tunisian SMB ERP platform covering invoicing, TVA/TTN/TEIF compliance, accounting, payroll, inventory, and client portal.
- ▶ Designed a 36-model Prisma schema with 29 SQL migrations; implemented PDF/XLSX exports, web push notifications, and PWA support.
- ▶ Built end-to-end test suite with Playwright and Vitest; Dockerized with multi-stage builds, health checks, and prod/dev Compose variants.

pronote-api — School Management Backend | [Node.js](#) · [Express](#) · [TypeScript](#) · [Prisma](#) · [PostgreSQL](#) · [Redis](#) · [MinIO](#) · [BullMQ](#) · [Firebase](#)

- ▶ Delivered a production-grade school management API with 43 OpenAPI-documented endpoints covering auth, RBAC, grades, timetable, files, messaging, absences, and bulletins.

- ▶ Implemented background BullMQ workers for export jobs, file upload/download signed URLs, push notification workers, audit logs, and rate limiting.
- ▶ Achieved comprehensive coverage with 30+ Jest/Supertest tests including auth, rate-limit, and worker validation suites.

FitNerve — AI Fitness & Nutrition Mobile App | [Flutter](#) · [Riverpod](#) · [Node.js](#) · [TypeScript](#) · [PostgreSQL](#) · [Redis](#) · [Gemini AI](#) · [Firebase](#)

- ▶ Built a cross-platform Flutter/Riverpod mobile app and a Node/Express TypeScript backend with 26 Prisma models (workouts, meals, plans, progress, reminders, shopping lists).
- ▶ Integrated Google Gemini for AI-powered fitness and nutrition plan generation; Redis/BullMQ for async background jobs; Firebase for push notifications and auth.
- ▶ Implemented Docker Compose dev stack with database, cache, storage, and worker containers; local caching and offline-first patterns on mobile.

RhAI / EscaHire — AI Recruitment Platform | [Fastify](#) · [Next.js 16](#) · [TypeScript](#) · [Prisma](#) · [PostgreSQL/pgvector](#) · [Redis](#) · [S3](#) · [pnpm/turbo](#)

- ▶ Built a pnpm/turbo monorepo housing Fastify API, Next.js web app, and shared packages; implemented vector-ready PostgreSQL with pgvector for AI-assisted candidate scoring.
- ▶ Designed 19 Prisma models for jobs, candidates, assessments, interviews, and subscriptions; S3 uploads, JWT auth, and background worker service.
- ▶ Delivered thorough test coverage for auth, scoring, workflow, crypto, token rotation, and AI job/assessment script integrations.

PropClose — B2B Sales Automation SaaS | [FastAPI](#) · [Python](#) · [Next.js](#) · [PostgreSQL](#) · [SQLAlchemy](#) · [Celery](#) · [Redis](#) · [Stripe](#) · [SendGrid](#)

- ▶ Architected a B2B proposal follow-up platform with FastAPI async backend, Celery worker/beat for scheduled email jobs, Alembic migrations, and Gmail OAuth integration.
- ▶ Integrated Stripe for billing, SendGrid for transactional email, Cloudflare R2/S3 for storage, and Socket.io for real-time proposal status updates.

App4Drivers — Ride-Hailing Marketplace Architecture | [NestJS](#) · [Flutter](#) · [PostgreSQL](#) · [Redis](#) · [Socket.io](#) · [AWS ECS/Fargate/RDS](#) · [Stripe Connect](#)

- ▶ Designed and documented a full ride-hailing/driver marketplace architecture including real-time geolocation, Stripe Connect split payments, QR referrals, and white-label B2B dashboard.
- ▶ Authored AWS ECS/Fargate/RDS/ElastiCache deployment architecture; integrated Twilio, Google Maps, and Firebase Cloud Messaging.

Cybersecurity Lab Portfolio | [Docker](#) · [Python](#) · [Flask](#) · [Kali Linux](#) · [noVNC](#) · [PHP](#) · [Node.js](#)

- ▶ Built and maintained 22,000+ file Dockerized lab environment for OWASP Top 10 (SQLi, XSS, SSRF, IDOR, command injection, file inclusion), privilege escalation, OSINT, and CTF workflows.
- ▶ Implemented attacker/target container networks with privileged capabilities; Kali/noVNC remote access; automated test scripts and pentest reports for cybersecurity education.

PROFESSIONAL EXPERIENCE

CAMPUSNA — Senior Full-Stack Engineer / Technical LeadTunis, Tunisia

- ▶ Led architecture and implementation of scalable SaaS platforms using Node.js, Django, Next.js, and TypeScript across production environments.
- ▶ Reduced deployment time by 70% by implementing Docker-based containerized pipelines and automated CI/CD workflows.

- Designed modular backend architectures and REST APIs; integrated AI/LLM features including OpenAI and Claude-based code acceleration.
- Collaborated with distributed remote engineering teams in Agile environments to deliver production-ready features on schedule.
- Reduced API response times by 40% on the MTN Corporate Platform through targeted query optimization and backend refactoring.

CSFMT — IT Systems Support / Infrastructure Hammam-Lif, Tunisia

- Managed IT infrastructure, network troubleshooting, automated backups, and monitoring scripts improving system reliability.
- Maintained hardware/software deployments and provided technical support across the organization.

EDUCATION

Holberton School — Full-Stack Software Engineering

CSFMT — Advanced Technician Degree, Information Technology