Abdelhay Bouramdane

Full-Stack Software Engineer

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SUMMARY

Full-stack software engineer building and optimizing internal web platforms, with a range that runs from **pixel-considered React/Next.js interfaces** down to **network daemons written from scratch in C/C++**. Trained at **1337 (42 Network)**, a project-driven engineering program where every system — shells, HTTP servers, concurrent schedulers — is built from first principles.

SKILLS

Languages	TypeScript · JavaScript · C · C++ · Python · SQL · Shell
Frontend	Next.js · React · Tailwind CSS · shadcn/ui · GSAP · Three.js / WebGL
Backend & Data	Node.js · Prisma · PostgreSQL · Socket.IO · Django · REST · i18n
Infrastructure	Docker · Nginx · Linux · Git · GitHub Actions · Vercel · SSL / Let's Encrypt

EXPERIENCE

Software Developer — Private organization (details on request)

Nov 2025 – Present · Ben Guerir, Morocco

Next.js · TypeScript · Prisma · PostgreSQL · Socket.IO · Docker

- **Architected** a real-time back-office platform: **role-based dashboards** with live multi-client synchronization over **Socket.IO** — a change made by one user appears instantly in every session.
- **Engineered** a fully **type-safe data layer** with Prisma schema-driven migrations, catching an entire class of data errors at compile time.
- **Optimized** the hottest read paths with query batching and **caching**, keeping dashboard loads consistently fast as the platform grows.
- **Refactored** legacy modules into strictly layered services, improving the reliability and maintainability of the team's core internal architecture.

Full-Stack Software Developer — Intern — Private organization (details on request)

Mar 2025 – Sep 2025 · Ben Guerir, Morocco

Next.js · TypeScript · Prisma · PostgreSQL · Tailwind CSS · Docker

- **Delivered** the organization's **first internal platform from zero to production** in a six-month internship — a back-office managing startup programs, user roles and access control — establishing foundations the team still builds on today.
- **Implemented** granular **role-based access control** and program-management workflows, translating operational processes into digital ones in direct collaboration with the operations team.
- **Shipped** transactional email and full **internationalization (i18n)**, making the platform usable across a multilingual user base.

SELECTED PROJECTS

Sillage E-Commerce Platform Live demo

Problem: Most e-commerce codebases entangle payments, persistence and UI, making providers impossible to swap.

Solution: Architected a strictly layered storefront and admin dashboard (routes → services → repositories → Prisma) with a pure, unit-tested domain layer — **Stripe and cash-on-delivery sit behind one payment interface** and swap by config, with zero code changes. Trilingual (**EN / FR / AR**) with full RTL.

`Next.js 16` `TypeScript` `Prisma 7` `PostgreSQL` `Better Auth` `Stripe` `Tailwind v4`

webserv HTTP/1.1 Server from Scratch GitHub

Problem: Understanding web infrastructure means building it — no frameworks, no shortcuts.

Solution: Engineered a spec-compliant **HTTP/1.1 server in raw C++**, serving many concurrent clients on a single thread via **non-blocking I/O** and event multiplexing, with static file serving and dynamic content through CGI.

`C++` `POSIX sockets` `CGI` `Linux`

SIGNALFIELD Interactive WebGL Landing Live demo

Problem: GPU-heavy hero visuals usually wreck performance and accessibility scores.

Solution: Built an interactive shader-driven signal field computed entirely in a **vertex shader** (zero per-frame CPU work) that pauses off-screen and degrades gracefully under reduced motion — **Lighthouse 100** in Accessibility, Best Practices and SEO.

`Three.js` `GLSL` `Vite` `GSAP` `Tailwind v4`

ft_transcendence Real-Time Multiplayer Pong GitHub

Problem: Real-time multiplayer demands low-latency state sync, secure identity and 3D rendering — all at once.

Solution: Developed a full-stack multiplayer game with **WebSocket-based live gameplay** (Django Channels), **JWT auth with 2FA** and remote login, user profiles and social features, rendered in 3D with **Three.js** and shipped in Docker.

`JavaScript` `Django` `WebSockets` `Three.js` `JWT` `Docker`

Also built: Inception (self-hosted multi-container Docker infrastructure) · minishell (Unix shell written from scratch in C) · Dining Philosophers (concurrency with threads/mutexes and processes/semaphores) · Cub3D (real-time raycasting engine in C)

EDUCATION

1337 — 42 Network · UM6P — Software Engineering `Oct 2022 – Present · Ben Guerir, Morocco`

Peer-to-peer, project-based engineering curriculum: systems programming in C/C++ (shells, HTTP servers, concurrency) through modern full-stack web platforms.

LANGUAGES

English (professional) · **Arabic** (native)