

Khalil Ltaief

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SUMMARY

Hey, I'm Khalil, a full-stack developer who genuinely enjoys the process of turning an idea into something people actually use. I like owning a project from the first line of code to the day it ships, and I'm always down to poke at something new just to see how it works. Based in Barcelona, currently studying, always building.

EXPERIENCE

Software Engineer — HOUNDER AI

December 2025 - Present

Amsterdam, Netherlands · Remote

- Improved site performance by auditing and enhancing Lighthouse metrics, raising the performance score from 40 to over 89, and shipped an alternate, performance-optimized home page.
- Added new onboarding features, fixed existing issues, and introduced 7 new search/browse filters across the platform using React, FastAPI, and Drizzle ORM.
- Designed and implemented an estimation algorithm to surface expected properties, and streamlined the account creation flow, cutting signup drop-off by 35%.
- Increased property-listing loading speed by 70% and expanded property options and layout information for a richer browsing experience.
- Spun up an internal Telegram bot using Qdrant, Supabase, and the Voyage AI embeddings API, pulling together knowledge from Telegram chats, Notion, Google Docs, Fireflies transcripts, and Obsidian into a unified, searchable knowledge base.
- Extended the bot with an agentic meeting-scheduling flow that cut the time to book a meeting from about 5 minutes to roughly 10 seconds, with users requesting a meeting in chat and the bot autonomously handling scheduling end-to-end.
- Delivered a smart retrieval system enabling team members to access company knowledge directly through chat, reducing information-access time by more than 80%.

Co-Founder and Software Engineer — DEVOXYS

June 2024 - Present

Tunis, Tunisia

- Rolled out Sheapit logistics platform serving 3 distinct user segments (individual shippers, professional drivers, transport companies) with customized dashboards and advanced search functionality.
- Scaled the platform to handle 500+ monthly shipment requests using Next.js, Tailwind CSS, and Prisma/PostgreSQL, featuring 15+ search filters and serving both Tunisian domestic and international shipping markets.
- Stood up a comprehensive admin dashboard managing 1,200+ registered users and monitoring platform operations, reducing manual administration tasks by 80% through systematized user verification and shipment tracking.

Web Developer Intern — HAMMAMET INFORMATIQUE SERVICES

January 2024 - June 2024

Hammamet, Tunisia

- Produced a healthcare web app with Next.js, Prisma, MongoDB, and NextAuth, allowing users to search for providers, book appointments, upload documents, and interact with doctors via chat and video calls, serving 500+ monthly users.
- Mapped out dashboards for managing patient calendars, consultations, account settings, and team management, improving operational efficiency by 40% for doctors and healthcare centers.
- Launched an admin panel for app management, adopted CI/CD practices with Git and GitHub, and released the app on Vercel achieving 99.8% uptime for scalable and seamless performance.

Mobile Developer Intern — HAMMAMET INFORMATIQUE SERVICES

March 2023

Hammamet, Tunisia

- Put out a Flutter mobile app enabling 150+ parents to monitor children's school life, access academic documents, and receive real-time notifications about school news and events.
- Integrated Firebase for database management and real-time data synchronization, achieving 99.9% uptime for notifications and secure user authentication for all users.
- Added an admin panel for content management and user interaction, reducing administrative task time by 60% through streamlined updates and hands-off notifications.

Network Technician Intern — TUNISIE TELECOM

March 2022

Hammamet, Tunisia

- Provided technical support, troubleshooting and resolving 50+ customer issues weekly with first-contact resolution rate.
- Managed and streamlined telecommunications networks, configuring 100+ routers and switches.
- Collaborated with 5-person technical teams to implement network upgrades, enhancing team productivity.

PROJECTS

TicketChain — Peer-to-peer event ticketing network — Solidity, Python, React (team project, CS414 Blockchain)

- Contributed to a 4-person team project building a ticketing platform where event tickets are ERC-721 assets with an on-chain resale price ceiling, powered by a hand-built P2P blockchain (proof-of-work, Merkle trees, gossip) bridging Ethereum events to peer-replicated nodes.
- Owned chain synchronization and the two-node demo (verifying peer consensus via longest-valid-chain), ran performance benchmarking across the stack, and authored the demo runbook and progress reports.

Jomhour — *Real-time stadium fan-chant synchronization app* — Next.js, Supabase Realtime

- Put together a real-time app letting a match admin trigger pre-written chants that appear in karaoke-style sync on thousands of fans' phones simultaneously, with no audio broadcast between devices.
- Planned a "shared clock, local playback" sync model with a clock-sync handshake and reconnect/resume handling, plus full Arabic RTL support (Intl.Segmenter) and an AI chant-drafting tool, on Next.js/Prisma/Supabase, released on Vercel.

Dareo — *Gamified social dare platform* — React 19, Express, PostgreSQL

- Launched a full-stack social app where friends create private groups and challenge each other with dares, earning XP, leveling up, and climbing a 7-tier rank system (Rookie to Legend).
- Architected with a domain-based (feature-first) structure on React 19, TypeScript, Zustand, and TanStack Query on the frontend, and Express 5 with Prisma/PostgreSQL and JWT auth on the backend.
- Wrote a 69-test suite (Vitest + React Testing Library) with CI running lint/typecheck/tests on every PR, and released it across Vercel (frontend), Railway (API), and Supabase (database).

Rainy Bedroom — **Three.js Scene** — *Interactive WebGL 3D scene with custom shaders and lighting*

- Crafted a moody, fully interactive 3D bedroom scene in Three.js/WebGL, featuring rain against a night city window, flickering neon signs, and clickable room objects with GSAP camera animations.
- Wrote a custom GPU-driven rain shader animating 1,600 streaks entirely on the GPU with zero per-frame CPU cost, and accelerated pointer interactions with a BVH-based raycasting system (three-mesh-bvh, SAH strategy).
- Shrank 3D assets with Draco compression and WebP re-encoding, cutting total asset size from 27.8MB to 3.1MB (an 89% reduction) without visible quality loss, and added a full post-processing pipeline (bloom, tone mapping, anti-aliasing).

SpotifyMood — *Mood-based music recommendation app made with React Native and Expo*

- Made a mobile app that lets users scan their mood via the device camera and receive matched Spotify playlists, with a persistent history of past mood scans.
- Developed with Expo, React Native, React 19, and strict TypeScript, using a feature-based architecture with isolated modules; integrated the Spotify Web API via OAuth (PKCE), biometric authentication, and push notifications.

Spanish Visa Status Automation — *Automated monitoring system for Spanish visa application status with notifications*

- Automated a system using Python, Selenium, and Tesseract OCR (with CAPTCHA solving) to check visa status every 10 minutes, with Pushover alerts and a GitHub Actions workflow for 24/7 monitoring, history tracking, and secure credential management.

Alien Space Events — *Event management system with QR ticketing and team collaboration features*

- Assembled a comprehensive event management system using Next.js, Tailwind CSS, Prisma, and PostgreSQL, released on Vercel, with customizable ticket types, one-time QR generation, real-time ticket scanning, email delivery, and Framer Motion animations.

Pharmacy MS — *Cross-platform mobile app to track pharmacy medication stock with Flutter and Firebase*

- Created a Flutter and Firebase app for real-time inventory tracking and data synchronization across devices, including stock-level tracking and sales/inventory reporting.

EDUCATION

Master in Data and Applied Computer Engineering

Universitat de Vic – Universitat Central de Catalunya · Spain · 2026 - 2027

Master of Science in Front-End Development

Harbour.Space Institute of Technology · Spain · 2025 - 2026

Bachelor of Science in Information Systems Development

Higher Institute of Technological Studies of Nabeul · Tunisia · 2021 - 2024

Baccalaureate in Computer Science

Atef Chaieb High School · Tunisia · 2021

SKILLS

Frontend: React, Next.js, TypeScript, Tailwind CSS, Flutter, React Native (Expo), Three.js/WebGL

Backend: Node.js, Python, FastAPI, Express, REST APIs, Prisma, Drizzle ORM, Springboot

Databases & DevOps: PostgreSQL, MySQL, MongoDB, Firebase, Qdrant, Supabase, Vercel, Railway, Git, GitHub Actions, CI/CD, EAS Build

AI, Testing & Additional: Voyage AI, RAG/retrieval search, Supabase Realtime, Telegram Bot API, Jest, Vitest, Playwright, RTL, Storybook, Responsive Design, UI/UX, Agile