Hamza Amiri

Full Stack Web Developer - AI

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PROFILE

Software Engineering and Information Systems student interested in web application development and in integrating AI-based solutions. I am looking for a final-year (PFE) internship where I can contribute to designing and building high-performance applications while strengthening my frontend, backend and AI skills.

EDUCATION

Bachelor's Degree in Software Engineering & Information Systems 2024 – 2027
Higher Institute of Computer Science and Mathematics of Monastir (ISIMM), Tunisia

EXPERIENCE

OphtaHealth: website ↗ Freelance project
Next.js, TypeScript, Tailwind CSS, Supabase, ImageKit, Netlify

- Designed and launched a French-language website for an ophthalmic equipment distributor: product catalogue filterable by category and brand, detailed product pages, brochure downloads.
- Built an admin dashboard on Supabase (authentication and row-level security): the client manages products, brands, categories, sales requests and after-sales service requests, with instant publishing through on-demand page revalidation.
- Lead capture through brochure downloads, an after-sales service form and WhatsApp links, with no data loss on failure.
- Security and load: strict CSP headers and load testing with k6.

PERSONAL PROJECTS

RsWork: QR-code ordering and restaurant management platform ↗
React 19, TypeScript, Vite, TanStack Query, Supabase, Python, FastAPI, Stripe, Groq LLM, Vercel, Render

- Multi-venue SaaS: customers scan the QR code on their table to order and pay; kitchen, waiter and cashier screens update in real time.
- Business rules written as row-level security (RLS) policies and PostgreSQL functions, with no custom back-end server.
- AI activity report (LLM-generated text and Holt-Winters sales forecast served by a Python microservice), exported as PDF.
- Security tests (SQL injection, XSS, IDOR, CSP) and k6 load tests: p95 latency of 163 ms, 0 errors.

NeroEd: local AI study assistant (RAG) ↗
Python, FastAPI, Ollama, llama3, BM25, PyTorch, CUDA, Next.js 15, React 19, TypeScript, pytest

- Fully local study assistant: streamed, cited answers from a PDF, revision sheets, quizzes and formulas.
- Hybrid RAG pipeline: sentence-based chunking, BM25 and vector search, GPU reranking, multi-part question decomposition, follow-up rewriting and multilingual retrieval (FR, EN, AR).
- Indexing of a 15 MB PDF cut from 33 min to 4.7 s; first word of the answer in under one second.
- Accuracy on a 510-page textbook raised from 23/36 to 45/48 using an evaluation benchmark, with a relevance threshold against made-up answers; 184 offline tests and 12 end-to-end tests.

SKILLS

- **Languages:** Python, JavaScript, TypeScript, HTML5, CSS3
- **Frameworks & technologies:** React.js, Next.js, Vite, TanStack Query, Tailwind CSS, FastAPI, PyTorch
- **Data & back-end:** Supabase (PostgreSQL), Stripe, Node.js, Express.js
- **AI & machine learning:** scikit-learn, pandas, NumPy, model training and evaluation, LLM integration, RAG, time-series forecasting
- **CI/CD & cloud:** Git, GitHub, Docker, AWS, Azure
- **Quality & deployment:** k6 load testing, security testing, pytest, Vercel, Netlify, Render, ImageKit (CDN)

LANGUAGES

Arabic: native · **English:** intermediate · **French:** intermediate