Gazzeh Oussema

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Seeking a Summer 2027 AI/ML internship | Open to relocation (visa sponsorship) or remote

Education

École Polytechnique de Sousse — Sousse, Tunisia
Engineering Degree, Software Engineering – AI & Data Science — *2025 – 2028 (expected)*

École Polytechnique de Sousse — Sousse, Tunisia
Bachelor's in Software Engineering – Graduated with honors — *2022 – 2025*

Projects

DocuMindRAG | *FastAPI, Qdrant, sentence-transformers, Gemini, Ollama* — 2026

- Built an end-to-end RAG pipeline with hybrid dense + sparse retrieval, Reciprocal Rank Fusion, and cross-encoder reranking, reaching **92% groundedness** on PDF document Q&A
- Designed an LLM evaluation workflow with groundedness scoring on a **50-question benchmark**, plus Gemini/Ollama integration, SSE streaming, and page-level PDF citations

Scanni – AI Food Ingredient Analyzer | *Flutter, Supabase, Gemini API* | horizon-impact.site — 2026

- *Community-impact project (PSC 2026) built by a 3-person dev team within an 8-member team*
- Integrated the **Gemini API** to turn raw OCR text from food labels into a structured ingredient list (JSON), making scans faster and more reliable on blurry or multilingual labels
- Built the product **landing page**, working with the marketing team to present the app to the public
- Co-developed a Flutter app that matches E-number additives against a decoded database and scores nutrition against WHO daily recommendations, with Supabase handling storage and scan history

Diabetes Risk Predictor | *scikit-learn, SHAP, Streamlit, pytest* — 2024, rebuilt 2026

- Built a leakage-free ML pipeline comparing 4 models with stratified cross-validation, tuning and probability calibration; best model reached **ROC-AUC 0.81** on a held-out test set (CV 0.85)
- Set the decision threshold for screening rather than accuracy, catching **80% of diabetic patients** (vs 52% at the default threshold), and explained predictions with **SHAP** in a Streamlit demo

Experience

Software Engineering Intern (Graduation Project) — 2025
GPRO Consulting — *Sousse, Tunisia*

- Built **TicketSphere**, a full-stack project-management platform (React, Node.js, Express, MongoDB) used to coordinate 30+ tasks for a 5-person team
- Implemented real-time ticket updates and team messaging with **Socket.io**, plus JWT authentication, bcrypt password hashing, and role-based access control in an MVC architecture
- Built 10+ reusable React components and **cut ticket-status update latency by 40%** via memoization

Software Engineering Intern — Summer 2024
Axia Solution — *M'saken, Tunisia*

- Shipped 20+ pull requests and reviewed teammates' code on a production e-commerce site serving 50+ products
- **Reduced page-load time by ∼30%** with MongoDB indexing and image lazy loading

Skills, Certifications & Languages

AI & LLM: RAG, hybrid retrieval, reranking, LLM evaluation, Gemini API, Ollama, tool calling, agentic workflows
Data Science: Python, pandas, NumPy, scikit-learn, SHAP, SQL, statistics, EDA, Matplotlib, Plotly
Databases: PostgreSQL, MySQL, MongoDB, Supabase, Qdrant, schema design, indexing
Software: TypeScript, JavaScript, React, Node.js, Express, FastAPI, Streamlit, Flutter, REST APIs, WebSocket
Cloud & Tools: AWS, Docker, Git, unit testing (pytest), CI basics, Agile/Scrum
Certifications: AWS Certified Cloud Practitioner (AWS); AI Engineer for Data Scientists Associate (DataCamp)
Languages: Arabic (native); English (professional working proficiency); French (strong comprehension, basic speaking)