

Dhiya Eddine EL GABSI

AI / Data & Backend Engineer · RAG & LLM Orchestration

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Summary

Software Engineering student at ENIT specialising in **AI, RAG systems and LLM orchestration**. Recent **PFA** on an Agentic-RAG emotional coaching chatbot and **summer internship** building a multi-tenant e-signature SaaS, combined with strong backend engineering (Spring Boot, NestJS, FastAPI) and technical leadership as IEEE CS Chapter Chair.

Skills

AI / ML & LLM	Agentic RAG, LLM integration (Gemini, OpenAI, Groq), NLP, Prompt Engineering, emotion detection, vector DB (pgvector, Qdrant), embeddings, fine-tuning
Orchestration	n8n (advanced), multi-agent workflows, webhooks, BPMN (Flowable), CI/CD (GitHub Actions)
Backend & APIs	Spring Boot 3, NestJS, FastAPI, REST APIs, Java, Python, TypeScript, Node.js, PostgreSQL, Prisma, Hibernate, JWT / Spring Security
Frontend	React 19, Next.js, TypeScript, Tailwind CSS, shadcn/ui, Vite
Data & Cloud	Supabase, Azure, Vercel, Docker, Stripe, Git
Languages	French (TCF B2) · English — Fluent · Arabic — Native

Projects & Experience

ResilienceBOT — Agentic-RAG Emotional Coaching Chatbot 2025–2026
PFA · **ENIT** Co-author

- Architected an **Agentic-RAG** coaching chatbot orchestrating 3 n8n pipelines (chat, ingestion, lifecycle) with multi-turn memory and session persistence.
- Built a **28-emotion detection API** (distilroberta-base, normalised into 7 tones) served via FastAPI, plus a full RAG pipeline (Supabase pgvector + Google Drive + Gemini).
- Embedded appreciative-coaching safety rules in the system prompt and mandatory vector anchoring to reduce hallucination and ensure ethical, personality-tailored responses.
- Stack:* n8n · Supabase pgvector · Google Gemini · FastAPI · Python

Flow Signa — Multi-tenant e-Signature SaaS Summer internship
Stage d'été Spring Boot · BPMN

- Designed a modular Maven monolith (Spring Boot 3.4 / Java 17) driving an **e-signature workflow** with **Flowable BPMN** (validation gateway, tasks, notifications) and RBAC across 5 roles.
- Implemented stateless JWT security, a comprehensive audit trail, and signature proof (IP, User-Agent, file hash, consent) over PostgreSQL.
- Stack:* Spring Boot · Flowable · Spring Security/JWT · PostgreSQL · React 19

WAHCHY — Fitness SaaS with AI Assistant
Projet personnel Full-stack

- Built a freemium fitness platform: **NestJS** modular backend (JWT + Argon2id, RBAC, Prisma/PostgreSQL) and a **Next.js + Tailwind + shadcn/ui** frontend, with an **OpenAI assistant** (health-safety detection, quotas) and Stripe subscriptions via PaymentProviderPort.

IEEE ENIT Education Week — RAG Educational System

- Developed and presented an educational **RAG system** with LLM integration and prompt engineering on behalf of IEEE Student Branch ENIT.

Leadership & Volunteering

Jeunes Ingénieurs de Djerba (JID) Sep 2023 – Present

- President** (Jan 2026 – Present): strategic planning, member coordination, and project execution.
- Event Lead of Orientini 8.0** — a large-scale career orientation event that attracted **500+ visitors** on 19 July 2026.

IEEE Club ENIT — CS Chapter Chair Jan 2026 – Present

- Oversee technical activities, workshop organisation, and cross-team collaboration.

Education

École Nationale d'Ingénieurs de Tunis (ENIT) 2025 – Expected 2028
Software Engineering Degree — 2^{ème} année

Concours National Préparatoire 2023 – 2025
Ranked **87th** nationally

Certifications

Getting Started with Deep Learning NVIDIA · Jun 2026

Applications of AI for Predictive Maintenance NVIDIA · Oct 2025

Hashgraph Developer Certification The Hashgraph Association · Oct 2025