

Taj Eddine Marmoul

AI & Full-Stack Engineering Student | Agentic Systems, MCP & RAG

AI and full-stack engineering student/intern building production agentic, RAG, and data systems.

Email: tajdinetajdine1@gmail.com **Phone:** +33 7 54 09 56 53

LinkedIn: linkedin.com/in/tajeddine-marmoul **GitHub:** github.com/TajEddineMarmoul

Currently completing a PFE internship at CNRS LAAS in Toulouse, France | Available from October 2026 | Open to remote, relocation, and visa-sponsored roles

Experience

AI Platform Engineer Intern (MCP / Agentic Systems)

Feb 2026 – Aug 2026

CNRS LAAS

Toulouse, France

- Designed and built an MCP-based agentic web platform where agents transform natural-language requests into structured tool calls for database, backend, and UI generation instead of raw code output.
- Deployed the platform in a lab environment used by ~200 daily users, supporting 8,000+ generated forms and 3,000+ created apps through FastMCP, FastAPI, React, and MongoDB services.
- Engineered a multi-agent system with 4 MCP servers and 60 tools, giving agents bounded actions, validation, audit logs, and human-in-the-loop approval for reliable internal workflows.
- Operated the platform in a containerized environment with LDAP, TLS, rate limiting, input validation, audit logging, and HITL approval; prepared the work for JDEV 2026.

BI, Data & DevOps Intern

Jul – Aug 2025

Royal Air Maroc

Casablanca-Settat, Morocco

- Built a production Dash application with PostgreSQL and Redis for flight-operations data, reducing dashboard load time by 60%.
- Guided a team of 5 to develop and deploy web and local versions used in Royal Air Maroc systems, while automating ETL/KPI reporting and operating a Docker, Nginx, Unicorn stack for 100+ concurrent users.

Unity Game Developer

Oct 2024 – Jul 2025

Studyo.io

Remote

- Developed 7 educational Unity games with integrated analytics, improving student engagement metrics by 40% through data-driven iteration.

AI & Full-Stack Intern

Jul 2024

1337 Coding School

Khouribga, Morocco

- Led a team of 3 developers to build a real-time security system using YOLOv5s and MobileFaceNet, reaching 95% face-recognition accuracy across a multi-camera setup.
- Trained PyTorch models for 126 GPU-hours and delivered a WebSocket application with role-based authentication for 50+ concurrent users.

Selected Projects

L'Cachet & PDF2Text-Arabic

Jan 2024 – Present

Independent AI Projects

- L'Cachet:** Independently built and deployed a multilingual Moroccan legal and administrative RAG platform with document ingestion, vector search, grounded answers, authentication, and production deployment.
- Platform:** Built the full-stack product with Next.js 16, TypeScript, PostgreSQL/Prisma, pgvector and Pinecone support, Gemini embeddings, usage controls, shared chat sessions, payment flows, and 4-language support.
- PDF2Text-Arabic:** Developed the Arabic PDF extraction engine used in the ingestion pipeline, with PyMuPDF-based parsing, table extraction, footer cleanup, OCR fallback, and RTL text reconstruction for legal documents.
- Data pipeline:** Crawled, extracted, cleaned, and indexed 6,600+ legal documents and 2,500+ official procedures into 85,000+ embeddings for grounded retrieval and source-aware prompting.

Education

ENSAM Casablanca, Morocco – Artificial Intelligence & Computer Science

2023 – Present

Final-year engineering student; currently completing a PFE internship at CNRS LAAS in Toulouse.

CPGE Ibn Abdoun, Morocco – Mathematics & Physics

2021 – 2023

Skills

AI / Agents: MCP, FastMCP, RAG, tool calling, prompt engineering, vector search, LLM APIs

Backend / Data: Python, FastAPI, PostgreSQL, MongoDB, Redis, Prisma, REST APIs

Frontend / Infra: React, Next.js, TypeScript, Docker, Nginx, Linux, TLS

Certifications & Languages

Certifications: OCI 2025 Data Science; DataCamp Professional Data Analyst (2024)

Languages: Arabic (Native); English (Professional); French (Professional working proficiency)