Fedi Limem

Computer Engineering Student (AI & Data Science) — Final-year internship from mid-January / early February 2027

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01 PROFILE

Final-year student in a Computer Engineering degree, specialising in AI and Data Science (ITEAM, Tunis). Coming from IoT and embedded systems, I build end-to-end AI solutions: LLMs (LoRA fine-tuning, RAG, agents that cite their sources), deep learning and computer vision, constraint optimisation and infrastructure automation. I am looking for a 4–6 month final-year internship in computer science: AI, data, software development or automation.

02 TECHNICAL SKILLS

- **Generative AI & LLMs:** fine-tuning (LoRA), RAG, LLM agents, structured outputs (Zod), prompt engineering, Qwen2.5-Coder, Gemini API, GPT-4o mini, vector search (Qdrant)
- **Machine learning, data & optimisation:** Python, Random Forest, XGBoost, data cleaning, exploration and modelling, constraint programming (OR-Tools CP-SAT)
- **Deep learning & vision:** PyTorch, convolutional neural networks (CNN), data augmentation, confusion matrix, ONNX export, ONNX Runtime Web
- **DevOps & automation:** StackStorm, HashiCorp Vault, Docker, Grafana, microservices, Telegram bots (ChatOps), Git/GitHub, pytest
- **Web:** Next.js, React, TypeScript, Vite, FastAPI, Prisma, Gradio, GSAP, JavaScript, PHP, Symfony, Java/JavaFX, HTML/CSS
- **Databases:** PostgreSQL, MySQL, SQL Server, SQLite/libSQL · **IoT & embedded:** Arduino, ESP32, sensors, real-time monitoring

03 WORK EXPERIENCE

DevOps & AI Automation Intern — Wind Consulting, Tunisia *Summer 2026*

- Designed a secure ChatOps platform that lets engineers run the infrastructure from Telegram.
- Integrated StackStorm, Vault, Grafana and a RAG layer (Qdrant, GPT-4o mini); platform delivered to the team.

AI Intern — Talan Tunisia *June – August 2025*

- Fine-tuned Qwen2.5-Coder-0.5B with LoRA on software engineering best practices (Java, SOLID, Clean Code, Git, SonarQube).
- Integrated the model into a Gradio business chatbot with conversation history, delivered ready to use.

04 PROJECTS

Panacea — Finding forgotten remedies in historical texts *Personal project · 2026*
LLM extraction of medicinal uses from a 1653 treatise, each backed by an exact quote; links to compounds (Wikidata); a score for plants widely used in the past but rarely studied today (PubMed); dual-source RAG (historical text + PubMed) with hybrid search and cited answers. **Python · Gemini · BM25 + embeddings · Wikidata · PubMed · Streamlit**

FediSonar — Moving object detection in sonar video *Personal project · 2026*
Prototype built in one day for an INRAE interview: detects moving objects in acoustic camera videos, towards automatically counting migrating fish. **Python · OpenCV · Computer vision**

FediDraw — Real-time drawing recognition *Personal project · 2026*
Recognises a drawing while it is being sketched: CNN trained with PyTorch on 300,000 Quick Draw sketches (92.8% accuracy over 30 classes, 98% top-5), preprocessing faithful to the training format, 1.5 MB ONNX model running in the browser with no server (~1 ms), game mode; Lighthouse 100. (github.com/fedifedifedi/fedidraw) **PyTorch · ONNX · TypeScript · Vite**

LMAgent — AI cover letter agent *Personal project · 2026*
Writes a cover letter tailored to each job offer from a CV (PDF or photo): structured profile extraction, offer analysis, writing where every sentence cites its source, critical review and PDF export. No skill missing from the CV can be claimed. (github.com/fedifedifedi/LMAgent) **Next.js · TypeScript · Gemini · Zod · Prisma · libSQL**

Fedi's Planner — Timetabling through optimisation *Personal project · 2026*
Generates conflict-free school timetables (CP-SAT solver): reformulated room constraints (14× fewer variables, 6–8× faster solving), scores 3–6× better than a greedy algorithm, conflict explanations and minimal replanning when someone is absent. (github.com/fedifedifedi/fedis-planner) **Python · OR-Tools · FastAPI · Next.js · pytest**

AI ChatOps platform — Running infrastructure from Telegram *Wind Consulting · 2026*
16 microservices orchestrated with StackStorm, secrets in Vault, Grafana monitoring and a RAG layer (Qdrant, GPT-4o mini) answering operational questions. **StackStorm · RAG · Qdrant · Vault · Docker · Grafana**

LLM fine-tuning — Software best-practice assistant *Talan Tunisia · 2025*
Qwen2.5-Coder-0.5B adapted with LoRA to software best practices, served through a Gradio chatbot with history. **Qwen2.5-Coder · LoRA · Gradio**

PrediT'Kick — Football analytics and prediction *ITEAM · academic project*
Analytics platform built on 9,048 FIFA 23 players, 245 teams and 58,892 real matches; 81% accuracy in predicting player positions. **Python · Random Forest · XGBoost**

Other projects: DocBot (RAG assistant for SMEs, deployed on Railway) · DiagSein IA (machine-learning support for breast cancer diagnosis, ITEAM) · AI study assistant (course PDFs → cited answers, quizzes, spaced repetition) · KπBIOS (AI, data & IoT decision support) · Smart Water Management (water usage monitoring and real-time alerts, IoT) · TaskApp (task management).

05 EDUCATION

Engineering degree in Computer Science (2nd and 3rd year) — AI & Data Science, ITEAM University, Tunis *2025 – 2027*
Engineering cycle (1st year) — Computer Engineering, ESPRIT Monastir *2024 – 2025*
Bachelor's in Computer Systems Engineering — IoT & Embedded, ISI Mahdia *2024*
Baccalaureate in Experimental Sciences — Ksour Essef High School *2021*

06 CERTIFICATIONS, LANGUAGES AND INTERESTS

Certifications (2026): Get Started with Databricks for Generative AI — Databricks × Simplilearn · Machine Learning Using Python — Simplilearn · Excel Dashboard for Beginners — Microsoft × Simplilearn

Other certifications: Generative AI & LLMs — Udemy · Python and SQL — Udemy · Python Programming — Spectrum Training Center (2022)

Languages: Arabic (native) · French (fluent) · English (intermediate) · Spanish (intermediate)

Interests: Football · AI and technology watch · Video editing and content creation