

Adam Derbel

AI & DATA SCIENCE ENGINEER

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🔗 github.com/Adamderbel 🔗 adamderbel.github.io/Adam-Portfolio 🗣️ huggingface.co/AdamDE

SUMMARY

AI & Data Science Engineer pursuing a Master's in Software Engineering with strong expertise in machine learning, deep learning, and LLM engineering. Experienced in building scalable AI systems, deploying end-to-end solutions, and applying data driven insights to solve complex problems. Passionate about bridging research and real-world applications to deliver measurable impact.

SKILLS

Programming & Databases

Python, SQL, NoSQL, APIs, ETL

Machine Learning & Analytics

Scikit-learn, Statsmodels, Pandas, NumPy

Deep Learning

PyTorch, TensorFlow, Keras, NLP

LLM Engineering

Hugging Face, LangChain, FAISS, RAG, Ollama LLM, LoRA/PEFT

Visualization & Applications

Plotly, Matplotlib, Dash, Streamlit, Flask

Deployment & MLOps

Docker, Git, GitHub, Hugging Face Hub

Data Acquisition

BeautifulSoup, Requests

Soft Skills

Problem-Solving, Collaboration, Communication, Analytical Thinking

PROJECTS

AI Market Pulse Dashboard | Github 🔗

Modular AI powered platform for market analysis across finance, IoT, and marketing.

- Engineered a modular architecture supporting multiple domains, enabling rapid expansion for new use cases.
- Orchestrated ETL pipelines with SQLite and daily data refreshes, streamlining data processing.
- Integrated forecasting models and local LLMs to generate actionable insights.
- Developed interactive dashboards with stock analysis, indicators, and CSV export enhancing decision making.

Tech Stack: Python, SQL, Dash, Ollama LLM, Scikit-learn, Pandas, Plotly

Context Aware Website Chatbot (RAG) | Github 🔗

Domain specific chatbot using Retrieval Augmented Generation.

- Implemented AI chatbot using Mistral LLM + FAISS for fast, context aware responses.
- Automated web scraping and secure text preprocessing.
- Constructed RAG pipeline with vector search + generative AI for accurate Q&A.
- Designed Streamlit UI with session-based chat history.

Tech Stack: Python, Ollama LLM, Hugging Face, LangChain, FAISS, Streamlit

FineTuned TinyLlama for Custom YouTube Replies | Github 🔗

Lightweight LoRA finetuned LLM for domain specific comments.

- Collected and prepared dataset of AI/ML YouTube comments.
- Trained and evaluated TinyLlama-1.1B-Chat with LoRA/PEFT.
- Published model adapter on Hugging Face Hub.

Tech Stack: Python, Transformers, Hugging Face, LoRA/PEFT

PROFESSIONAL EXPERIENCE

Clinisys | Business Intelligence Intern

Sfax, Tunisia | Feb 2024 – June 2024

- Analyzed customer and sales datasets to support segmentation and forecasting.
- Designed interactive dashboards, improving stakeholder access to KPIs.
- Streamlined BI reporting, enhancing team workflow and decision making.

Karry Group | Web Development Intern

Sfax, Tunisia | June 2023 – Aug 2023

- Developed a web-based application with integrated database.
- Improved workflows with structured data management and automation.
- Delivered a production ready system applying full stack best practices.

EDUCATION

Master of Science in Software Engineering (Online)

Higher Institute of Technological Studies · sfax, Tunisia | Sep 2024 – Present

Bachelor of Science in Computer Science (Big Data)

Higher Institute of Computer Science and Multimedia · sfax, Tunisia | Sep 2021 – June 2024

CERTIFICATES

- Certificate of Completion — Generative AI Hackathon with IBM Granite (Lablab) 🔗
- Applied Data Science Lab — WorldQuant University (Credly) 🔗