

Mehdi El Akary

mehdyakr@gmail.com | +212 709 891 377 | linkedin.com/in/elakarymehdi | github.com/callmemehdy

About Me

I am a highly driven AI/Software engineer with a strong passion for artificial intelligence and machine learning. Based in Casablanca, Morocco, I bring expertise across AI/ML systems, and building intelligent applications.

Education

1337 Coding School - University Mohamed VI Polytechnic, Digital Technologies Architecture

Projects

linearRegression | Linear Regression Model from Scratch

- Implemented linear regression algorithm from scratch using Python and NumPy without relying on ML libraries.
- Developed gradient descent optimization with configurable learning rates and iteration limits.
- Built data preprocessing pipeline including feature scaling and normalization techniques.
- Visualized model performance with loss curves and prediction plots using Matplotlib.

ft_transcendence | Real-Time Multiplayer Gaming Platform

- Collaborated closely with a team to build a web platform combining gaming and social features.
- Took ownership of developing user authentication (JWT, 2FA), live chat, and dashboards for user stats.
- Designed real-time multiplayer ping-pong game with matchmaking.

containerization | Multi-Service Containerized Infrastructure

- Took ownership of designing a multi-container architecture using Docker for isolated service environments.
- Configured Nginx for routing and load balancing and Redis for performance optimization.
- Building custom Docker images from scratch
- Integrated advanced bonus services including a Streamlit-based AI assistant using the Google Gemini 2.5 Flash API.

BeardyChat | Irc Server From Scratch Using C++

- Built IRC server in C++ handling multiple concurrent client connections using non-blocking I/O and poll().
- Implemented authentication, channel management, private messaging, and operator commands (KICK, INVITE, TOPIC, MODE).
- Developed automated bot for server management and integrated file transfer support for enhanced functionality.

docAssistantChatBot | Simple RAG ChatBot with LangChain and Ollama

- Built a Retrieval-Augmented Generation (RAG) system using LangChain, ChromaDB, and Ollama for local document querying.
- Implemented custom knowledge base creation from PDF documents, local LLM/embeddings with Ollama (mistral, nomic-embed-text), and efficient vector storage using ChromaDB.
- Developed modular components for database population, embedding generation, and interactive querying, enhancing system maintainability and scalability.

Skills

Languages: C, C++, Python, Javascript/TypeScript, HTML/CSS, Sqlite, MySQL

Technologies: React, Next.js, FastAPI, Docker, Git/Github, Hashicorp Vault, Fastify, Tailwind, SkLearn, Matplotlib, Langchain, Chroma, Pandas, Numpy, Redis, Streamlit

Soft Skills: Communication, Fast Learning, Critical Thinking, Collaboration, Leadership and Ownership

Spoken Languages: Arabic, French, English