

Elie-Antoine El-Mehanna Geagea

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EDUCATION

Saint Joseph University-ESIB

Jun 2028

- Third-year CCE student.

Collège Notre-Dame de Nazareth | Beyrouth, Liban

Jun 2023

- French Baccalaureate, specialization in Biology, Mathematics and Physics-Chemistry.

CERTIFICATIONS

Machine Learning Specialization — Coursera, DeepLearning.AI & Stanford Online

Jun 2026

- Completed 3-course specialization covering supervised learning, advanced learning algorithms, unsupervised learning, recommender systems, and reinforcement learning.

Fundamentals of AI Agents Using RAG and LangChain — Coursera, IBM

Jun 2026

- Completed an IBM-authorized course covering AI agents, RAG pipelines, embeddings, vector retrieval, LangChain components, prompt engineering, and tool-calling for LLM applications.

WORK EXPERIENCE

DataMind—Beirut, Lebanon

Jun–Jul2025

Software development intern

- Gained a solid understanding of APIs and developed a functional API during the internship.
- Used HTML and Java Script to build a website that interacted with the API.
- Applied SQL to support the company's database needs and improve data handling.

PROJECTS

Multi-Agent AI App — Python, Streamlit, Langflow, OpenAI API, RAG, Git/GitHub

Jun–Jul2026

- Built a Streamlit-based multi-agent AI app using a Python Router Agent to route questions to six agents: General Agent, RAG Agent, Summarizer Agent, Code Explainer Agent, Error Debugging Agent, and Math Agent.
- Integrated Langflow flows through API requests and implemented RAG-based question answering using a knowledge base importance analysis.
- Added specialized features including text summarization, code explanation, error debugging, deterministic math calculations, routing transparency, chat export, and GitHub documentation.

Agentic RAG Chatbot— Python, LangChain, Chroma DB, OpenAI API, Streamlit, Git/GitHub

Jun–Jul2026

- Designed an agentic RAG system that routed retrieval dynamically and self-corrected on low-confidence results before generating an answer.
- Implemented PDF loading, text chunking, embeddings, Chroma vector storage, similarity search, and LLM-based answer generation.
- Developed a Streamlit chat interface with chat history, source display, error handling, and secure handling of API keys and private files

Handwritten Digit Recognition App — Python, TensorFlow/Keras, CNN, Streamlit, OpenCV

Jun–Jul2026

- Built and deployed a computer vision app using MNIST to classify handwritten digits from 0 to 9.
- Compared Logistic Regression, Dense Neural Network, and CNN models, achieved 98.60% CNN test accuracy.
- Evaluated performance with accuracy, confusion matrix, classification report, and incorrect prediction analysis.

Customer Churn Prediction Project — Python, scikit-learn, pandas, Git/GitHub

Jun -Jul2026

- Built an end-to-end machine learning project to predict telecom customer churn.
- Performed data cleaning, exploratory data analysis, preprocessing, model comparison, cross-validation, threshold tuning, and feature importance analysis.
- Selected a balanced Logistic Regression model focused on detecting churners, achieving about 78% recall on the test set.
- Deployed the model using Streamlit, allowing users to enter customer data and receive a churn probability and risk level.

SKILLS

Programming Languages: Python, C++, SQL, HTML.

Machine Learning: regression, classification, logistic regression, decision trees, neural networks, clustering, recommender systems, reinforcement learning.

Generative AI: RAG, LangChain, Chroma DB, OpenAI API, embeddings, vector retrieval, prompt engineering, and LLM tools.

Data Analysis: pandas, NumPy, data cleaning, exploratory data analysis, model evaluation.

Tools: Git, GitHub, VS Code, Jupyter Notebook, StreamLit, Chroma DB.

Soft Skills: leadership, communication, discipline, teamwork, problem-solving.

Career Interest: Artificial Intelligence and Machine Learning Engineering.

EXTRACURRICULAR & LEADERSHIP EXPERIENCE

Scout du Liban – Chef de Troupe

Sept 2013–Present

- Responsible of a group of 70 boys aged 13 to 17.
- Supervised and led educational activities, coordinated group life, and ensured their well-being and safety.
- Coordinated a team of assistant leaders, managed task distribution. And handled conflict resolution.

Taekwondo –Blackbelt three stripes

Sept 2010 – Nov 2019

- Winner of a 5-match tournament (3 rounds each) in 2017.
- Earned Black Belt rank in 2017.

Pianist

Sept 2011–Nov 2019

- Eight years of classical piano training and performed in several school events
- Developed discipline, creativity, and long-term focus through regular practice and performance preparation.