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Zahraa Alkerdy

Computer and Communication Engineer

Hardworking and ambitious engineer with a background in telecommunications and a growing specialization in Artificial Intelligence. Eager to apply knowledge in both fields, learn quickly, and contribute to impactful real-world projects of my goals.

Education and Certifications

- **Computer and Communication Engineering**

Lebanese University, Faculty of Engineering

2018–2023

Courses:

- Telecommunications
- Signal and Information Theory
- Computer Science
- Database
- Data Analysis
- Wireless Network

Projects

Real Time Robot Controlling Using Face Detection and Hand Gestures Recognition

- Implement a machine learning model that can detect the authorized face in order to access the robot
- Implement another model to classify hand gestures and control the movement of the robot
- Build the robot that will move wirelessly using hand gestures

Arduino: Multitasking Security System

- Controlling home appliances using Arduino mega
- Controlling home's temperature by the use of temperature sensor
- Designing security system using ultrasonic sensor

RAG-Powered HR Assistant

- Built a documented-based AI assistant using Retrieval-Augmented Generation methods to search and summarize resumes.
- Implemented document embedding, storage (FAISS), and retrieval pipelines.
- Integrated open-source LLMs for contextual answer generation using LangChain.

Titanic Survival Prediction

- Applied supervised ML models with feature engineering and evaluation techniques to predict passenger survival.

Global Terrorism Analysis

- An analysis done on a given dataset concerning terrorism attacks using Google Collab

Technologies and Languages

- Languages: C/C++, Python, Java, SQL
- AI and Machine Learning: Python, TensorFlow, PyTorch, scikit-learn, Keras, NLP, Transformers, RAG, Deep Learning (CNN), Feature Engineering, FAISS, LangChain
- Other: Data structures and algorithms
Teamwork, Problem-Solving, and Fast Learner

Certifications

- **Ogero Internship**
OGERO, engine of MoT, constitutes the backbone infrastructure for all telecom networks including Mobile Operators, Data Service Providers, Internet Service Providers and others.
The course taken covered the exchange design - as main distribution frame..- and the transmission of data over copper and fiber optic cable
- **AI Engineer Program**
 - Completed a hands-on program covering AI, machine learning, deep learning, LLMs, and multi-agent systems.
 - Built practical projects including chatbots, RAG applications, and predictive ML models.
 - Gained experience in Python, TensorFlow, PyTorch, Hugging Face, and LangChain for real-world AI applications