LOUMA MEHYEDDINE

MSc Candidate in Computer Science | XAI and RL Research Intern

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EXPERIENCE

EXplainableAI and Reinforcement Learning Research Intern
Master's Thesis Internship

📅 May 2024 - Present   📍 Remote

- A research work in collaboration with the Lebanese University, the University of Applied Sciences of Southern Switzerland (SUPSI), Switzerland, and Chalmers University of Technology, Sweden.
- Aims to investigate using explainable AI frameworks (SHAP) to improve trust in reinforcement learning (RL) models for communication network optimization.
- **Technologies used: Python, RL, SHAP.**

Deep Learning and Computer Vision Research Intern
GEOAI Group - National Council for Scientific Research, Lebanon

📅 May 2023 - Sep 2023   📍 Remote

- Explored, implemented, and tested various multi-modal models for remote sensing images.
- Conducted a comprehensive literature review on state-of-the-art visual grounding methods.
- Worked on the front-end of the Qaraoun monitoring application (in projects).
- **Technologies used: Python(Pytorch), Vision-transfomers.**

PROJECTS

Qaraoun monitoring app front-end
Senior project - GEOAI

📅 May - June 2023   📍 Lebanon

- Done in collaboration with GEOAI
- Worked with React with no prior knowledge, conducted extensive research to find and implement a satellite image provider with a map preview.
- Enhanced the data visualizations to accommodate large data series.
- **Technologies used: React, JavaScript, Python, FlaskAPI.**

Mobile Price Range Predictor
Bootcamp Project

📅 Sep 2022   📍 Lebanon

Developed a sequential Keras model to predict mobile phone price ranges. Applied data preprocessing and feature engineering techniques to improve performance. Using: TenserFlow, Keras. **Project on Github**

Android Application
Senior Project

📅 June - Aug 2022   📍 Lebanon

A project for the Islamic Center for Orientation and Higher Education

- Developing an android application that display all information about universities and majors in Lebanon, using Java for developing and working with a remote MySQL datbase via JSON.

SKILLS

- **Deep Learning**
- **Computer Vision**
- **Python**, Pytorch*, NumPY, Pandas, Matplotlib libraries
- **Java**
- **C**, C **linux**
- **Database design and querying**, using (**SQL, MS SQL Server**)

EDUCATION

Master of Science in Information Systems and Data Intelligence
Lebanese University - Faculty of Sciences

📅 2022 – 2024 (ongoing)

- **Thesis Title:** Explainable Reinforcement Learning for Routing and Wavelength Assignment in Networks

BSc in Computer Science
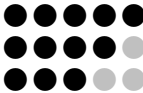**Lebanese University - Faculty of Sciences**

📅 2019 – 2022

LANGUAGES

Language	Level
Arabic	●●●●●
English	●●●●○
French	●●●○○

CERTIFICATES

Zaka Artificial Intelligence Bootcamp:
- Data Science and Machine Learning: Linear Regression and Classification.
- Deep Learning.
- Computer Vision.
- Natural Language Processing.
- Time-Series Analysis.

* beginner.