

Ahmed Mrabet

Artificial Intelligence Engineer Student, Ensias



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EXPERIENCE

AI/BACKEND ENGINEER INTERNSHIP

June 2022 – September 2022 | PULL4YOU SERVICES S.A.R.L, Casablanca, Morocco

- Developed on-demand transportation service, enhancing user experience by generating the route 400% times faster
- Constructed web app with Restful APIs for optimized route planning, decreasing travel time and saving fuel of each vehicle.
- Analyzed and optimized multi-vehicle path.
- Engineered algorithm for efficient vehicle paths.
- Incorporated traffic patterns and road conditions into algorithm.
- Integrated error detection system, reducing delays.
- Implemented optimization system into existing backend.

Skills Acquired : Scrum · Docker · Agile Methodologies · Trello · GitHub · Django REST Framework · Django · Python · PostgreSQL · Postgis · RESTful API

PROJECTS

PROTEIN-PROTEIN INTERACTIONS PREDICTION

March 2023 - Present

- Collected and preprocessed protein sequence and structural data
- Investigate and analyze database characteristics: Examine the properties and attributes of protein databases to better understand their structure and content.
- Converting protein sequences into graph-based representations, where nodes represent amino acids and edges represent spatial or sequential connections.
- Employed Graph Neural Networks (GNN) to predict protein-protein interactions, enhancing understanding of complex biological processes

Skills : Python · Graph neural network (GNN) · Pytorch · Numpy · Pandas

IMAGE-BASED SEARCH ENGINE

November 2022 - January 2023

- Developed an image-based search engine using color, texture, and shape features
- Utilized advanced image processing techniques for accurate search results
- Implemented color histogram analysis for color-based search
- Employed texture analysis for texture-based search
- Integrated shape detection for shape-based search
- Matched user-provided images with relevant search results

Skills : Image Processing · Color Histogram Analysis · Texture Analysis · Shape Detection · Python · OpenCV · Skimage

ARABIC INFORMATION RETRIEVAL WEB APPLICATION

December 2022 - February 2023

- Developed Arabic information retrieval web application as a team project
- Enabled users to efficiently search and obtain information from a comprehensive database
- Collected and preprocessed Arabic documents, streamlining search efficiency
- Implemented powerful search engine to effectively retrieve relevant information

Skills : Tfidf · Python · Pandas · Numpy · PyArabic · Flask

EDUCATION

NATIONAL SCHOOL OF COMPUTER SCIENCE AND SYSTEMS ANALYSIS (EN-SIAS IN FRENCH)

ENGINEERING STUDENT IN ARTIFICIAL INTELLIGENCE

September 2021 - Present | Rabat, Morocco

Data Analysis,
Machine learning Theory,
High-performance computing,
Deep Learning
Deep Reinforcement Learning

SKILLS

PROGRAMMING

Proficient:

Python · R · Java · C · Bash

Familiar:

C# · Julia · HTML · CSS · Javascript · Typescript

LIBRARIES/Frameworks

Numpy · Pandas · Matplotlib · Seaborn · Tensorflow · Pytorch · Django · Flask · Pytest · BeautifulSoup · Selenium · Scikit-learn · OpenCV · Skimage

TOOLS/PLATFORMS

Git · Trello · Docker · Cuda · Anaconda · Postman · AWS

LANGUAGES

English · French · Arabic

COMPETITIONS

FINALIST AT MOROCCOAI COMPETITION

November 2022 - December 2022

Using NLP, we scraped African tender data, advancing to the final round with 80 teams.