ABDELMOUHAIMEN SARHANE

Second-year student in Digital Sciences at INP-ENSEEIHT, specializing in Image, Multimedia, and Artificial Intelligence, seeking a professional contract in the AI field starting from September 2024 for my final year of studies.

@ abdo-sarhane@hotmail.com   📞 +33 651894861   in Abdelmouhaimen

PROFESSIONAL EXPERIENCE

📅 June 2024 - September 2024   📍 GET-OMP

Deep Learning for Long-term Monitoring of West African Water Bodies | CNRS

- Adapt and apply a CNN U-Net deep learning algorithm to Landsat satellite images for recognizing lakes.
- Analyze water surface changes in West Africa from 1984 to present
- Evaluate the water detection results against existing products.
- *Technologies Used: Python, TensorFlow, QGIS, GDAL*

📅 June 2023 - July 2023   📍 ENAC

IT Researcher and Developer Internship

- Conducted energy consumption assessment in matrix computations for compressed data.
- Developed C applications to compare compressors such as Blaz and ZFP using PowerJoular, while also applying them in the sports analysis field, particularly in creating heatmaps for player movement.
- Contributed to the writing of a paper which was accepted at the ICT4S 2024 conference.

SKILLS

- Python & libraries (sklearn, pomegranate, scipy, tensorflow, nltk, openCV), SQL, R Studio, Microsoft Office (PowerBI, Excel, PowerPoint), Java, OCamL
- Docker, OpenVINO, Azure, AWS, Matlab, WebDev Stack(Django/Flask, HTML, CSS, JS, Ajax, React)
- Machine Learning & AI, Optimization, Statistics & Mathematical Modeling
- Effective Project Management and Collaboration, Innovative Leadership, and Strategic Problem-Solving.

CERTIFICATIONS

- IBM AI Engineering Professional Certificate
- Python CS50P and CS50x Certificates in Advanced Python & Web Development
- Cambridge Linguaskill Business English Certificate : C1 or above
- Languages: English (Fluent), French (Fluent), Arabic (Native) & Spanish (Beginner), Japanese (Beginner)

EDUCATION

Image processing and Artificial Intelligence | INP-ENSEEIHT - Toulouse | 2022-2025

- Advanced coursework in Artificial Intelligence methodologies, including Computer Vision, Deep Learning, and Image Processing.
- Extensive training in Concurrent Systems, Distributed Data, and Model-Driven Engineering.
- Diverse courses ranging from applied mathematics, Statistics, Optimization, Operations Research, artificial intelligence to business strategy, sustainable development, and project management.

MPSI/PSI Preparatory Classes | CPGE SAINT-BENOIT - Angers | 2020-2022

PROJECTS

Personal Project | Sentiment Analysis on Movie Reviews using LLMs | 2024

- Developed sentiment analysis system for movie reviews using Large Language Models (LLMs)
- Collected and preprocessed movie reviews from various online platforms. Fine-tuned pre-trained LLMs and evaluated model performance.

Academic Projects | Deep Learning and Computer Vision | 2024

- Implementation of neural networks using numpy. Dogs and cats classification. Posture estimation. Object detection and localization. Handwriting recognition.
- Traffic sign image classification, data preprocessing and augmentation, model optimization techniques to prevent overfitting and improve generalization.
- *Technologies Used: Python, TensorFlow, Keras, Matplotlib*

Personal Project | Traffic Light Optimization with AI | 2023

- Optimization of traffic light control using deep learning based on traffic density calculated from image processing and car detection with cameras via OpenCV.

Interesting Academic Projects

- Created a Shazam-like system in MATLAB using a self-built music database, and developed a program for source separation from audio signals.
- Development and implementation of advanced image processing techniques from (restoration, active contours, photomontage, structure/texture decomposition)
- 3D Rendering Engine in Java : Implementation of a complete graphics pipeline including coordinate transformation, rasterization, shading and texture mapping
- RevEasy — Interactive Java Swing Learning Platform : Impeleminting Quiz Mechanisms for personalized review options, backend logic implementation.