Arezki HADDOUCHE

Currently enrolled in a Master 2 program in Intelligent Systems Engineering at Sorbonne University, I am also working in an apprenticeship position as a Data Analyst at a research laboratory (LMD - Laboratoire de Météorologie Dynamique)

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📅 23 years old

📍 ile-de-france

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WORK EXPERIENCE

Data Analyst (Apprenticeship) - Signal Processing & Data Analysis
Since January 2025
Laboratoire de Météorologie Dynamique (LMD) Massy palaiseau, France
- Validation of ATLID spaceborne lidar (EarthCARE mission - ESA/JAXA) by comparing satellite and ground-based observations.

SCAI Summer School on AI and Sustainable Food Systems
August 2025 **SCAI** Paris

Attended HiPARIS Summer School 2025 - AI for Science, Business & Society
July 2025 **HiPARIS** Ecole polytechnique

4th place at Hi!ckathon 5th Edition: AI & Sustainability
From November 2024 to December 2024
Hi! PARIS (HEC Paris - Institut Polytechnique de Paris) Palaiseau, France
Trained a model for predicting piezometric water levels using Random Forest

Representative of Mantes-La-Jolie within the Saferoad team of the KESK'IA program
From November 2023 to July 2024
Evolukid Mantes-La-Jolie
- Trained YOLOv8 algorithm to detect road anomalies
- Advanced image manipulation using Python, Roboflow, etc.

Internship in electrical fault repair and electric scooter maintenance
From June 2023 to July 2023
fixwheel 14 Rue Soleillet, 75020 Paris

SKILLS

Models and Algorithms
- Machine Learning: Regression, Random Forest, SVM
- Deep Learning: MLP, CNN,RL, YOLOv8, U-Net .
- Lidar Signal/Image/Audio Processing

Bibliothèques Python
- Keras, TensorFlow, NumPy, Matplotlib, Pandas, OpenCV

Programming Languages
- Python,C++,C, MATLAB

LANGUAGES

French (Fluent)

English (Advanced level)

EDUCATION

Master's Degree in Automation and Robotics Specialization: Intelligent Systems Engineering (ISI)
From September 2024 to September 2026
Sorbonne University 4 Pl. Jussieu, 75005 Paris
Coursework: Machine Learning, Deep Learning, Big Data, Python Programming, Control Systems, Image & Sound Processing

Bachelor's Degree in Electronics, Electrical Energy and Automation
From September 2022 to July 2024
Sorbonne University 4 Pl. Jussieu, 75005 Paris

L2 at IGEE (Institute of Electrical and Electronic Engineering), Algeria (Program taught in English)
From September 2022 to July 2024 **IGEE ex Inelec** Boumerdes

PROJETS

Master's Final Project: Automated Road Obstacle Detection System
From November 2024 to February 2026
Sorbonne university Paris
- Embedded system with Raspberry Pi and dual cameras for road obstacle detection

CNN-based Denoising for ATLID Lidar Data
Since July 2025 **LMD** Massy palaiseau
- Developing a Convolutional Neural Network model to reduce noise in ATLID spaceborne lidar measurements, improving data quality for atmospheric analysis.

Designed and implemented an advanced AI strategy for the Sevens card game using C++
From March 2025 to May 2025 **Sorbonne university** Paris
- Used Reinforcement Learning to train an agent playing against random and greedy strategies

Driver drowsiness detection and alarm triggering
Since March 2024 , Paris
- Facial landmark analysis (Dlib, OpenCV)
- Alarm triggering using Arduino prototype

Facial emotion detection system using Python
From March 2024 to April 2024 , Paris
Created and trained a Convolutional Neural Network (CNN).

Bachelor's Final Project: Line-Following Robot
From May 2024 to July 2024 **Sorbonne University** Paris
- Programming electronic systems with microcontrollers
- Signal processing and electronic circuit design

Laptop price prediction - Machine Learning
From July 2020 to August 2022 , Paris
- Created a data preprocessing and training pipeline