



AMZIL Youssef

Data Scientist & AI Engineer | MSc Graduate

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📍 Neubrandenburg, Germany

🌐 Amzil-youssef

📁 PROJECTS

Linguistically Informed LoRA - PEFT Research

Hierarchical LoRA rank allocation strategy for low-resource NLP, validated across code-switching ASR (Whisper) and Neural Machine Translation (NMT).

Early Wildfire Detection via Satellite Imagery

Designed and trained a hybrid generative model (VAE-WGAN-GP) for wildfire identification from Sentinel-2 multispectral satellite imagery using an unsupervised anomaly-detection approach.

Distributed Multi-Agent Disaster Prediction

Decentralised multi-agent platform for real-time disaster detection operating on an Edge-Fog-Cloud continuum via hybrid XMPP/P2P mesh. Integrated YOLOv8 and privacy-preserving federated learning across three autonomous drone agents.

Skeleton Based Human Action Recognition

ST-GCN implementation for real time skeleton based HAR on NTU RGB+D, modelling the human skeleton as a learnable graph to capture cross-joint dependencies.

📁 PROFESSIONAL EXPERIENCE

Master's Thesis Researcher in GeoAI & Remote Sensing

Hochschule Neubrandenburg

Population Estimation Using Multispectral Remote Sensing. Implementing LULC classification, 3D nDSM morphological modeling for volumetric building density estimation, validated against 2024 Census.

03/2026 – 07/2026

Germany

JavaFX Developer Internship

ENS Tétouan

Development of a Human Resources Management Application using JavaFX

05/2024 – 07/2024

Martil, Maroc

Qt Developer

RECYKIOSK

Implemented an innovative user interface for the RecyKiosk machine using the Qt QML Framework.

08/2023 – 11/2023

Paris, France

Full Stack Developer Internship

RECYKIOSK

Development of a web application for managing IT equipment offers/lots using the LARAVEL Framework.

04/2022 – 07/2022

Paris, France

🎓 EDUCATION

Master's Degree in Data Science and Analytics (Currently)

Polydisciplinary Faculty of Safi

2024 – 2026

Safi, Maroc

Bachelor's Degree in Software and Web Development

ENS Abdelmalek Essaadi university

2023 – 2024

Martil, Maroc

Diploma in Software Development

Specialized Institute of Applied Technology

2020 – 2022

Oujda, Maroc

📄 CERTIFICATES

• Data Science Fundamentals with Python and SQL [🔗](#)

• Generative AI Prompt Engineering Basics [🔗](#)

• Google Data Analytics [🔗](#)

🧠 SKILLS

Programming Languages

Python, C, C#, JS, PHP, HTML, CSS, XML, Java, JEE

Frameworks

ASP.NET, Laravel, JQuery, React, Bootstrap, Qt QML

Big Data

Hadoop, Spark, Hive, Apache Pig, Kafka

SQL/NoSQL & Modeling

MySQL, SqlServer, Oracle, MongoDB, Merise, UML

Data Science & AI

Pandas, NumPy, Machine Learning, Deep Learning, GenAI, NLP

Tools & Environments

Jira, Visual Studio, VS Code, Qt Creator, Jupyter Notebooks, Git

🌐 LANGUAGES

English

Fluent

French

Fluent

Arabe

Native

German

Basic (A1)