DEROUICH SAMIRA

Data Science & AI engineering student

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Profile

Data Science & AI engineering student at ESPRIT with practical experience in building end-to-end machine learning solutions and deploying them using MLOps tools (FastAPI, MLflow, and Docker). Specialized in deep learning (CNN, RNN, AutoEncoders) and business intelligence. Adept at data visualization with Power BI, and passionate about delivering impactful, production-ready data solutions.
Highly motivated, analytical, and eager to contribute to real-world data challenges.

Education

09/2024 – present	**Engineering Student in Data Science & AI** *Esprit*	Ariana, Tunisia
09/2023	**Master's in Data Science** *ISIMM*	Monastir, Tunisia
09/2020 – 06/2023	**Bachelor's, Computer Science** *ISIMM*	Monastir, Tunisia

Certificates

• Applications of AI for Anomaly Detection : NVIDIA ↗   • Fundamentals of Deep Learning : NVIDIA ↗

Skills

Machine Learning Regression , Classification and Clustering	**Deep Learning** ANN, CNN, RNN, GCN and AutoEncoders	**Business Intelligence** Power BI	**Big Data** HDFS,Hadoop
Model Evaluation & Optimization cross-validation, hyperparameter tuning	**MLOps** FastAPI, Docker, MLflow, Model Deployment.	**Databases** MySQL, NOSQL	**Soft Skills** Team Collaboration, Strong Communication

Professional Experience

07/2024 – 09/2024	**Data Science Intern** *SW Consulting* • Applied machine learning models for marketing analytics and customer segmentation. • Built interactive Power BI dashboards to guide business decisions and improve targeting.	Monastir, Tunisia
02/2023 – 06/2023	**Laravel Developer Intern** *Finansya Lab* • Developed a web application to analyze financial resources in the forex sector using Laravel.	Monastir, Tunisia
07/2022 – 08/2022	**Laravel Intern** *Elyos Digital* • Participated in web development tasks using Laravel and collaborated on version-controlled projects.	Monastir, Tunisia

Projects

03/2025 – 05/2025	**Emotion Recognition from Audio using Deep Learning** • Built custom models (EmotionResNet50, TransformerEncoder) on datasets like EmoDB and RAVDESS. • Used mel-spectrograms and audio preprocessing for robust classification.
01/2025 – 05/2025	**Lung Cancer Detection using Deep Learning** • Trained deep learning model to detect and classify lung cancer from medical images with high accuracy • Implemented data preprocessing pipelines to handle medical imaging datasets, ensuring robust model performance.
10/2024 – 03/2025	**Customer Churn Prediction** • Built an end-to-end machine learning pipeline using FastAPI, MLflow, Docker. • Trained models (XGBoost, GBM, Random Forest) with CRISP-DM methodology.
09/2024 – 11/2024	**FIFA World Cup Dashboard (BI)** • Built interactive BI dashboards visualizing player performance, goals, and trends using Power BI.

Languages

Arabic	**French**	**English**
Native	B2	B2