Data Scientist
Achraf Louzali

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🎓 Education

National School of Mines of Nancy, *Big Data Specialization* 🔗   09/2020 – 09/2023 | Nancy, France
Courses : Data Analysis, Machine Learning, Deep Learning, Statistical Inference, Optimization, Operations Research

Faculty of Sciences at the University of Lorraine,   09/2022 – 09/2023 | Nancy, France
M2 in parallel with Mines Nancy : Mathematical Engineering for Data Science 🔗
Courses: Databases and Information Systems, Statistics for High-Dimensional Data

Preparatory Classes for Grandes Écoles- Lycée Lissane Eddine Ibn Al-Khatib /   09/2017 – 07/2020 | Laayoune/ Agadir, Maroc
Groupe Scolaire Al Qalam, *Physics and Mathematics*

📂 Projets

Personnalised Chatbot 🔗
Creating a personalized chatbot named "AchrafBot" based on my academic and professional background involves:
- Creating Elaborate Prompts for GPT-3.5: Developing detailed prompts for GPT-3.5 to form a context-aware chatbot. These prompts should encompass my academic and professional history, all organized within a single text.
- Developing a Conversational Interface using HTML/JavaScript: Building a conversational interface using HTML and JavaScript to simulate interactions based on the provided data and the conversation's history.

Detection of periapical lesions on dental panoramic radiography., *Mines Nancy - CHR METZ-THIONVILLE* 🔗
Improving the detection of lesions using Machine Learning applied to dental radiography images involves the following:
- Image Preprocessing: Converting medical format images into a format accessible to models.
- Data Augmentation: Increasing the dataset size due to the limited number of images.
- Utilizing State-of-the-Art Computer Vision Models (YOLO): Employing cutting-edge computer vision models for lesion detection.

Credit card fraud Detection., *Mines Nancy* 🔗
Detection of fraudulent transactions using machine learning techniques.
- Exploratory Data Analysis (EDA) and Data Preprocessing
- Utilization and Evaluation of Classification Models: Training and evaluation of classification models such as Logistic Regression, Naive Bayes, and Random Forest for fraud detection.

Travel Insurance Prediction, *Mines Nancy* 🔗
Creating a model to predict whether a customer would be interested in a new life insurance package using R.
- Analyzing and visualizing the database (correlation between variables, independence tests...).
- Training and selecting models using cross-validation methods.

💼 Professionnal Experiences

Data Science Intern, *Valtech* 🔗   02/2023 – 08/2023 | Paris, France
Internship on a multimodal search engine (image and text) for exploring a fashion product collection.
- Data Preprocessing for existing or internet-available data.
- Model Training (using CLIP, BLIP) with fashion product datasets.
- Developing an application for deploying the search engine with FastAPI and Angular.
- Enhancing model performance with reinforcement learning using user feedback.
- Utilizing Generative AI for image caption generation.

Deep Learning Intern, *LORIA* 🔗   06/2022 – 08/2022 | Nancy, France
Research internship on neural networks used in Transformers.
- Establishing a pipeline to define performance boundaries (upper and lower bounds) for models on NLP tasks.

🧠 Software Skills

Python (NumPy, Pandas, Pytorch, TensorFlow, Scikit-learn) ● **Excel** ● **R** (Data Vizualization and analysis) ● **Docker**

Deep Learning (CNN, RNN, LSTM, GAN, Reinfocement Learning,LLM) ● **Linux**

Machine Learning (XGBoost, SVM, K-Means, Decision Trees, Naive Bayes, k-NN, Clusteringn, Random Forest, Linear/Logistic Regression)

GIT ● **Data Visualisation** (PowerBI, Tableau, seaborn, matplotlib) ● **Flask** ● **PySpark**

🌍 Languages

Français (Fluent) ● Anglais (C1) ● Arabe (Native) ● Espagnol (B2)

📇 Certifications

- Machine Learning (Stanford University) 🔗   ● IELTS Academic (C1 - 7.0/9)
- Siele (B1/B2)