



Saber Hemaïdia




Data scientist developing machine learning models, and building cloud-based solutions. Visit my **Portfolio website** to see my recent works!

Data Scientist - Python Developer

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 [Media-RGB](#)

Experiences

Data Scientist – Enedis

September 2022 - October 2024

Led critical data initiatives during France's energy crisis, focusing on nationwide electricity consumption optimization.

- Reduced Paris's electricity consumption by rescheduling the operation of water heaters.
- Developed and deployed ML forecasting models to predict electricity consumption patterns across different consumer segments.
- Engineered end-to-end daily **ETL pipeline using Airflow, Python, and PostgreSQL** to:
 - Extract consumption data from Hadoop infrastructure
 - Transform and load into **Teradata data warehouse**
 - Automate regular updates to France's Open Data platform
- Created **interactive PowerBI dashboards** visualizing electrical consumption and energy saving nationwide, region-wide and by sector of activities.
- Documented comprehensive technical specifications and maintained data processing packages.

Data Scientist – MediaRGB

February 2022 - August 2022

Developed a computer vision API that transforms user faces into personalized avatars by training CNN models on facial image datasets, leveraging AWS S3 for data storage and processing.

- Trained Convolutional Neural Network (CNN) models for accurate facial feature classification.
- Employed **U-Net based semantic segmentation** to precisely extract facial hair and hairstyles from user's face.
- Labeled thousands of facial images to ensure high-quality training data.
- Image pre-processing with **OpenCV**.
- Principal Component Analysis (PCA) and K-Nearest Neighbors (KNN) classification.
- Webapp deployment on **AWS using Flask API**.

Data Scientist – Alitalia Courtage

Janvier 2021 - Janvier 2022

Designed and developed a user-friendly CRM hosted on Amazon cloud that decreased overall operational costs by 35%.

- Implementation of the clients and insurances database on the **AWS cloud using PostgreSQL**.
- Created a **Flask-RESTful API** to retrieve insurance solutions from multiple sources.
- Creation of a CRM dashboard with React and Bootstrap using the API solution.
- Documentation covering API endpoints, database schema, and system architecture.
- Self-sufficient CI/CD pipeline using **GitHub, Jenkins, and Docker**.

Data Scientist – Renault

September 2019 - December 2020

Various missions on different Renault autonomous driving car prototypes as an ADAS and camera specialist.

- Development of driving assistance scripts using camera, Lidar and ECU data.
- Test and Validation of camera (Sony) and Soft Computer Vison (Mobileye) suppliers.
- Technical documentation and presentation.
- Data collection and fusion of the **Lidar, camera and ECU for 3D-mapping** of the environment around the car.
- Camera calibration.

Educations

2017 - 2019

Master of physics University Grenoble Alpes - France

2014 - 2017

Licence of physics Université de Lorraine - France

Skills

Programming Languages: Python, R, C++, PySpark, Hadoop, Matlab, JavaScript, HTML, CSS, SQL, Bash

Frameworks & Libraries: Flask, Django, React, TensorFlow, PyTorch, Pandas, OpenCV

Cloud & DevOps: AWS, Airflow, Docker, Kubernetes, Jenkins, GitLab, CI/CD

Data & Analytics: Data Analysis, Deep Learning, Machine Learning, AI, Image Processing, Camera Technologies

Data & Analytics: French(fluent), English(professional), Spanish(basics)

Publication

Rayleigh Waves in Phononic Crystal Made of Multilayered Pillars: Confined Modes, Fano Resonances, and Acoustically Induced Transparency

Physical Review Applied · Mar 16, 2018