

Mohamed Touhami HADJ

Full Stack Data Engineer

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📍 Paris, France

🧠 Skills

Python (Pandas, Scikit-learn, Flask) • **SQL** (PostgreSQL) • **ETL** (Spark, Airflow) • **REST APIs** • **NoSQL** (MongoDB) • **Git** • **NLP** • **Complex problem solving** • **HTML/CSS/Javascript (basic level)**

📁 Professional Experience

Safety Data Engineer, ArianeGroup - Apprenticeship ☑

2022 – 2024

Paris, France

- Designed and implemented a **Python-based tool** to predict launcher explosion consequences, improving productivity from days to minutes.
- **Automated report generation** using experimental data, significantly reducing manual effort for the safety department.
- Collected and digitized data from a 600-page physical workbook using NLP techniques, integrating it into a SQL database (**PostgreSQL**).
- Built an **ETL pipeline** to clean and load experimental data into databases, ensuring data integrity and accessibility.
- **Collaborated** with cross-functional teams to present insights and deploy the tool organization-wide.

Software development for Centre for Propulsion Engineering,

2022 May – 2022 Sep

Cranfield University Internship

Cranfield, England

- Enhanced performance evaluation of compressor systems by **optimizing** Python and Fortran codebases.
- Provided **detailed documentation** and collaborated with researchers to deploy the optimized models.

🎓 Education

ENSTA Paris, Polytechnic Institute of Paris,

2024 Oct

MSc - Engineering Degree in Data & Software Systems, Apprenticeship ☑

Paris, France

- Dual **academic** and **professional** training combining advanced coursework with hands-on industry experience.
- Focus on **database** management, **software engineering**, **machine learning**, and **numerical optimization**.

📁 Projects

Personnal portfolio, On free-time

- Developed a personal website using HTML/CSS, showcasing professional experience and projects.
- Built a chatbot powered by a Flask API, leveraging a vector database (Chroma) and BERT embeddings to provide personalized responses.
- Implemented an SQL database to store user prompts, enabling future improvements through fine-tuning and analysis.
- **Technologies Used**: Flask, Requests, PostgreSQL, NLP models (BERT), JavaScript, HTML, CSS