

# Hamza EL BELGHITI

## DATA & ML ENGINEER



hamagistral.dev



Hamagistral



Hamza El Belghiti



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## EXPERIENCES

### AIRBUS

September 2025 – August 2026

Data Analyst - Apprenticeship

Toulouse, France

- Maintenance and evolution of a dashboard centralizing customer quality point data (QLBs) for A330/A350 programs, adding new KPIs enabling management to identify trends and optimize non-conformity tracking
- Design of an end-to-end ML pipeline predicting Customer Presentation dates in the FAL (A330/A350) using XGBoost, achieving a MAE of 4.1 days and 87% of predictions within  $\pm 7$  days, improving planning and team resource allocation

**Technologies:** Skywise (Workbook, Pipeline Builder, Contour, Modeling, Workshop), Python, PySpark

### BLENT AI

September 2024 – July 2025

Analytics Engineer - Apprenticeship

Paris, France

- Migration of the Mage orchestration tool to Airflow and pipeline maintenance
- Development of an AI chatbot to assist students on the platform and automated student project evaluation using a multimodal RAG
- Creation of courses, coding challenges and hands-on exercises on Analytics Engineering

**Technologies:** Airbyte, Airflow, BigQuery, dbt, Metabase, Langchain, HuggingFace, Groq, Pinecone

Analytics Engineer - Internship

February 2024 – July 2024

- Implementation of automated ELT pipelines to feed the Customer Data Platform
- Development of Reverse ETL for marketing tools such as Hubspot and CustomerIO
- Building of sales and marketing dashboards to analyze customer data KPIs
- DGAC Consulting:** Automation of aerodrome information extraction from PDFs

**Technologies:** Airbyte, MongoDB, Hubspot, Mage, BigQuery, dbt, Looker, Open Metadata Python, PDFplumber, Langchain, OpenAI API, ChromaDB, Streamlit

### 3D SMART FACTORY

June 2023 – September 2023

Machine Learning Engineer - Internship

Mohammedia, Morocco

- Deployment of a 3D deep learning model via serverless REST API on AWS, reducing infrastructure costs from \$85/month to \$1.3 per 1,000 requests
- Design of the user interface using 3D libraries and deployment on Vercel

**Technologies:** Vite, React, Tailwindcss, Three, VTK.js, Firebase, PyTorch, FastAPI, Docker, Vercel AWS ECR + Lambda + API Gateway

## EDUCATION

### MASTER MIAGE DATA ENGINEERING AND PROTECTION

2024 - 2026

📍 University Toulouse III (France)

**Courses:** Data Analytics, Cloud and DevOps, Big Data, Gen AI, Agile Projects, Data Governance

### MASTER OF SCIENCE IN DATA ENGINEERING

2022 - 2024

📍 University Mohammed V de Rabat (Morocco)

**Courses:** Big Data, Business Intelligence, Datamining, Data Science, Database Administration

## PROJECTS

### END-TO-END RETAIL ANALYTICS PLATFORM

ZOOCAMP FINAL PROJECT | [GITHUB](#) [DEMO](#)

- Design and implementation of an ELT data pipeline using Airflow on GCP
- Data ingestion into GCP Storage Bucket, BigQuery and transformation with dbt
- Development of a dashboard to identify and track total revenue by country and product

**Technologies:** Python, Terraform IaC, Airflow, dbt, Soda, GCP Storage + BigQuery, Docker, Looker

## SKILLS

### PROGRAMMING

Python • Java • C

### DATABASES

BigQuery • PostgreSQL • MongoDB • Oracle • Snowflake

### DATA ENGINEERING

Terraform • Airbyte • Mage • Airflow • dbt • databricks • Spark • Kafka • PowerBI • Looker Studio • Metabase

### AI & ML

TensorFlow • PyTorch • Scikit-learn Langchain • HuggingFace • Pinecone RAG • MLFlow • Fine-tuning

### WEB DEVELOPMENT

HTML/CSS • React • Nextjs • FastAPI • REST APIs • Django • Streamlit

### CLOUD

Google Cloud • AWS • Skywise

### TOOLS

Linux • Docker • Git • UML • ClickUp

### LANGUAGES

French • English • Arabic

## CERTIFICATES

### GCP Professional Cloud Architect

Delivered by Google (*in progress...*)

### GCP Professional Data Engineer

Delivered by Google

### DATA ENGINEER

Delivered by DataCamp

### MACHINE LEARNING

Delivered by FreeCodeCamp

## EXTRACURRICULAR

### STREAMLIT FOR EDUCATION

Student Ambassador Leader | 2023-2024

## INTERESTS

Blogging

Hackathons

Travel

E-sports