

Hamza EL BELGHITI

DATA & AI ENGINEER



hamagistral.dev



Hamagistral



Hamza El Belghiti



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Toulouse, France

EXPERIENCE

AIRBUS

Data & AI Engineer

September 2025 – August 2026

Toulouse, France

- Maintenance and development of a dashboard centralizing QLB customer quality data for the A330 and A350 programs
- Development of an LLM-based system for analyzing QLBs from final cabin presentations, enabling automatic detection of recurring non-conformities and supporting quality teams
- Design of an end-to-end ML pipeline using XGBoost to predict customer presentation dates at the A330/A350 FAL, achieving a **MAE of 4.1 days and 87% of predictions** within ± 7 days, improving team planning and resource allocation

Technologies: Skywise (Workbook, Pipeline Builder, Contour, Modeling, Workshop), Python, PySpark, NLP, Gemini, Prompt Engineering

BLENT AI

Analytics Engineer

February 2024 – July 2025

Paris, France

- Implementation of automated ELT pipelines to feed the Customer Data Platform
- Development of Reverse ETL for marketing tools such as HubSpot and CustomerIO
- Development of an AI chatbot to assist students on the platform and automated grading of student projects using a multimodal RAG system
- Migration of the orchestration tool from Mage to Airflow and pipeline maintenance
- Construction of sales and marketing dashboards to analyze customer data KPIs
- Consulting and design of an AI MVP for the DGAC to automate the extraction and monthly structuring of data from 300 French aerodromes using LLM

Technologies: Airbyte, Mage, Airflow, BigQuery, dbt, Metabase, Looker, MongoDB, Hubspot, Open Metadata, Langchain, HuggingFace, Groq, Pinecone, PDFplumber, OpenAI API, ChromaDB, Streamlit

3D SMART FACTORY

Machine Learning Engineer

June 2023 – September 2023

Mohammedia, Morocco

- Serverless deployment of a deep learning model for 3D tooth segmentation via 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, FastAPI, Docker, Vercel, AWS

EDUCATION

MASTER MIAGE DATA ENGINEERING

Courses: Decision Support Systems, Cloud & DevOps, Big Data, Generative AI, Agile Projects, IS Governance

University of Toulouse III (France)

2024 - 2026

MASTER DATA SCIENCE AND ENGINEERING

Courses: Big Data, Business Intelligence, Data Mining, Data Science, Database Administration

University of Mohammed V Rabat (Morocco)

2022 - 2024

PROJECT

CRAFTCOURSE : AI-POWERED PERSONALIZED LEARNING PLATFORM | [DEMO](#)

SAAS PROJECT (+500 users)

- Development of a platform that generates visual roadmaps and structured courses personalized to the learner's level, goals, and schedule
- Integration of a conversational AI tutor accompanying the learner in real time with automatic generation of quizzes, summaries, and flashcards
- Implementation of a full gamification system (XP, streaks, leaderboard, verifiable certificates) to maximize learner engagement and retention

Technologies: Next.js, Supabase, pgvector, Gemini API, Hetzner VPS, Webshare, Tailwind, Resend, Vercel, Stripe, Claude Code

SKILLS

Programming: Python, Java, C

Databases: BigQuery, PostgreSQL, Supabase, Redis, pgVector, MongoDB, Oracle, Vector DBs (Pinecone, ChromaDB)

AI & ML: PyTorch, Scikit-learn, LangChain, HuggingFace, RAG, MLflow, AI Agents (CrewAI, n8n, LangGraph), Fine-tuning, MLOps

Web Development: HTML/CSS, React, Next.js, TypeScript, REST APIs, FastAPI, Django, Streamlit

Cloud: Google Cloud, AWS, Skywise

Tools: Linux, Docker, Git, GitHub Actions, Jira, ClickUp

Languages: French, English, Arabic

CERTIFICATIONS

GCP Professional Cloud Architect - [Google](#)

GCP Professional Data Engineer - [Google](#)

Machine Learning - [FreeCodeCamp](#)