RASLEN GUESMI

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My Portfolio

Professionel Summary

Results-oriented **Data Scientist & AI Engineer** with **experience** in machine learning, data engineering, and AI solutions. Skilled in ETL pipelines, cloud-based data processing, and scalable AI deployments. Strong expertise in **LLMs, NLP, and predictive modeling**, with hands-on experience in **Big Data technologies (Spark, Airflow, BigQuery)**. Passionate about building data-driven AI solutions for business optimization.

Technical Skills

- **ETL & Data Pipelines:** Apache Airflow, PySpark, BigQuery, SQL (MySQL, PostgreSQL)
- **Data Visualization**: Excel, Tableau,Power BI, Streamlit
- **Data Warehousing:** MongoDB, ChromaDB, Pinecone, Data Modeling
- **ML/DL frameworks:** tensorflow, pytorch, keras, scikit-learn

- **NLP/LLMs:** RAG, OLLAMA, Huggging Face, Fine-tuning, FLAN-T5, Llama3, Mistral
- **Software Engineering:** Python(OOP), CI/CD,
- Docker, Flask, FastAPI
- **Web Scraping:** Selenium, BeautifulSoup
- **Business Domains:** Marketing Analytics, Financial Reporting, Sports Analytics

Work Experience

AI Engineer – PredictiveLabs (Financial Sector)

📍 Remote | 📅 Jun 2025 – Present

- Enhanced data quality using imputation techniques and data versioning; improved model **accuracy by 5%.**

  Utilized **yfinance** for feature engineering and selected top features via Random Forest.

- Benchmarked **ML models** by event type (e.g., earnings, partnerships, clinical); integrated **LLMs** with **RAG,**

  boosting prediction accuracy to **85%.**

- Used **MLflow** for experiment tracking, model versioning, and performance comparison throughout the training

  pipeline.

- Built interactive dashboards with **Streamlit** and deployed prediction APIs using **FastAPI** for real-time access.

- Applied **backtesting** frameworks to evaluate AI-driven trading bot performance across historical financial data.

Freelance AI/Data Engineer

📍 Remote | 📅 Jan 2025 – Present

- **Built a Research RAG Application** for PDF-based retrieval (papers/text), enabling summarization, translation,

  and question answering using LLaMA 3; deployed via Streamlit, with ROUGE-based performance evaluation.

  (Independent, Jan 2025 – Mar 2025)

- **Designed and delivered live online courses** on Probability & Statistics (Python) and Web Scraping for 10+

  students, including hands-on projects and guided mentorship. *(Independent, Jan 2025 – Present)*

- **Fine-tuned a GPT-4-mini model** to emulate a strategic AI assistant for digital creators (Gage), focusing on brand deals, monetization, and mindset; built a sample JSONL dataset with tone, structure, and fallback handling. Collaborated with a fellow engineer via Upwork. *(Collaborative, May 2025)*

Data Science Engineer – 4InaTechnology (Energy Sector)

⚲ Manouba, Tunisia | 🗓 Feb 2024 – Aug 2024

- Designed **an ETL pipeline** to collect sensor data from **STM32 microcontrollers**, processed it with **Flask**, and stored results in **Firebase** using Firestore and Realtime Database for scalable deployment.
- Built **time-series forecasting models (LSTM, ARIMA)** for energy consumption prediction.
- Developed **AI-driven chatbots & dashboards** using Flask & Flutter for real-time analytics.
- Applied **CNN models** for image classification in energy monitoring systems.

Machine Learning Intern – Innov-Sys

⚲ Tunis, Tunisia | 🗓 Feb 2023 – Aug 2023

- Developed a **fitness e-coaching app** using Kivy & MediaPipe (pose estimation).
- Optimized user experience with **LSTM-based motion analysis**.

Projects

AI-Driven Football Player Performance Analysis (Big Data & AI | Nov 2024)

- Designed an **ETL pipeline (Airflow)** to automate ingestion of Bundesliga/FBref data into BigQuery.
- Developed AI analytics using **xG, market value KPIs, and Mistral LLM** for scouting insights.
- **Tech Stack**: Python, Airflow, BigQuery, Mistral LLM, Pandas

Sentiment & Toxicity Analysis (NLP + Data Engineering | Sept 2024)

- Scraped social media data using **Selenium** and stored in **MongoDB**.
- Deployed a **FastAPI backend** with Docker for real-time classification using Hugging Face models.
- **Tech Stack**: Python, Hugging Face, FastAPI, Docker, MongoDB

Education

🎓 **Master of Data Science** | University of Bizerte | 2021–2023
🎓 **Bachelor of Applied Mathematics** | University of Bizerte | 2018–2021

Certifications

- INTRODUCTION OF AI – UNIVERSITY OF HELSINKI
- PwC SWITZERLAND - POWER BI JOB SIMULATION – FORAGE
- FACHKRAFTE PROJECT : INETRCULTUREL SOFT SKILLS (LEADERSHIP,CRITICAL THINKING, TIME MANAGEMENT)
- INTRODUCTION TO MLFLOW – DATACAMP

Languages

- **English**: Fluent EFSET Certification C1| **German**: Intermediate A2
- **French**: Fluent | **Arabic**: Native