

Almudena Zhou Ramírez López

AI/ML Engineer | Data Scientist

> Madrid, Spain
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> Links: LinkedIn | GitHub Portfolio
> Languages: Spanish (native) | English (C1)

Experienced **Data Scientist** and **AI/MLOps Engineer** with expertise in developing and deploying **end-to-end machine learning systems**. My skills include large language models (**LLMs**), retrieval-augmented generation (**RAG**), and **scalable deployment** strategies. I have a proven track record of collaborating with **cross-functional teams**, managing code quality, and delivering impactful solutions that **balance quality with rapid prototyping**. Driven by curiosity and a **passion for learning** (¡check my **portfolio**!), I focus on creating innovative and efficient AI systems to solve real-world problems.

TECHNICAL SKILLS

Python and libraries (daily used) | **AWS** (daily used) | **OpenAI** (daily used) | **OpenSearch** (daily used) | **Docker** (daily used) | **Azure AI Services** (regularly used) | **Linux** (sporadically used) | **SQL** (sporadically used) | **Langgraph/Langchain** (sporadically used) | **Terraform** (sporadically used) | **PySpark** (sporadically used) | **Databricks** (sporadically used) | **Azure** (sporadically used) |

PROFESSIONAL EXPERIENCE

AI Engineer, Senior Analyst | Avanade, Madrid, Spain

Feb. 2024 – Present

Python, OpenAI, AWS, Azure, Databricks, PySpark, MLFlow, Git

- Designed and implemented **three LLM-based agents** (RAG batch processing and real-time chat systems) to **automate financial credit processes**, achieving an average client performance and satisfaction score of **9.2/10**.
- Developed scalable **RAG applications** leveraging **Azure Cognitive Systems/AI Services**, including Form Recognizer, Custom Vision, Speech to Text, and Document Intelligence.
- Collaborated in a **multi-cloud environment** (AWS and Azure) to build **end-to-end machine learning pipelines**, incorporating tools like Databricks, PySpark, and MLFlow for deployment and monitoring.

Data Scientist/AI Developer | New Horizon Technologies, Madrid, Spain

July 2021 – Jan. 2024

Python, Docker, SQL, Keras, TensorFlow, Jenkins, AWS, MLOps

Career Progression:

Transitioning from **Data Scientist** to **Code Repository Manager** for the Quantitative Team, to **also connect the quantitative and DevOps teams**, and ultimately assuming the role of **coordinator for the development division** within the DevOps team.

- Responsible for **integrating and maintaining team models in production**, monitoring for overfitting and drift.
- Managed **code quality and project end-to-end workflow**, overseeing deployments and approvals while streamlining processes with **CI/CD pipelines** and **Docker** to enhance efficiency and scalability.
- Collaborated across teams to ensure the **accurate application of business logic** within the production system.
- Collaborated with team leads on **decision-making** regarding **portfolio priorities**, strategy acceptance, and leverage.
- Built **machine learning models** for portfolio optimization and trading strategies using random forest, XGBoost, and reinforcement learning.
- Designed pipelines to **clean and validate financial time series data**, ensuring robust inputs for modeling.

EDUCATION

Data Science Virtual Internship | Data Glacier

May 2021 – Sep. 2021

Python, Git, Docker, Flask, pandas, numpy, matplotlib, Keras, scikit-learn

An **international collaborative project** involving business data processing and analysis, model development and deployment on Heroku, and presenting data to non-technical audiences.

MSc in Big Data and Data Science applied to Business and Economics | UNED, Spain

Jan. 2021 – Dec. 2021

MSc in Artificial Intelligence applied to Financial Markets | BME Institute, Spain

Oct. 2019 – Apr. 2021

BSc in Physics | Universidad Complutense de Madrid, Spain

Sep. 2015 – July 2019

CERTIFICATIONS

- AI-102** Azure AI Engineer Associate
- Security Certificate in ECDL, MTA
- Microinformatic Systems and Networks Course