

# FEDERICO FIORIO

## Data & Machine Learning Engineer

Milan, Italy

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GitHub | LinkedIn | Portfolio | Leetcode

Motivated computer science graduate specializing in data engineering, machine learning, and big data. Proficient in cloud-based solutions, ETL processes, and AI-driven technologies, with a proven ability to optimize workflows and deliver impactful results under pressure. Currently exploring competitive programming as a new challenge—and finding humor in the journey!

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## EXPERIENCE

### Data & Machine Learning Engineer | Data Reply, Milan, Italy

May 2024 - Present

- DAGs Migration: Refactored **Airflow** DAGs from legacy systems to **GCP Composer 2.x**, boosting scheduling efficiency by 10x for a major manufacturing client
- Designed and implemented an ingestion pipeline in **Databricks** to process raw data and deliver insights via Power BI, enabling the identification of dishonest individuals within a client company. This solution improved driver behavior and reduced costs by 20%.
- **RAG** Chatbot: Supported ingestion pipelines for a document retrieval chatbot for a leading bank, leveraging **Azure** and **OpenAI** for embeddings

### Data Engineer | Management Solutions, Milan, Italy

October 2023 - April 2024

- Developed ETL workflows with IBM DataStage and SQL for banking data warehouses, improving legacy sql query by an average of 10%
- Enforced data governance policies in cross-functional teams

### Software engineer intern | Dilium, Milan, Italy

February 2021 - May 2021

- Conducted research on GANs for deepfake generation, emphasizing ethical considerations
- Led training sessions for employees on the emerging risks of these technologies, especially audio forgery
- Developed my Bachelor thesis over open-source technologies used during this period

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## EDUCATION

### MSc in Computer Science | University of Milan

October 2021 – October 2023

Grade: 108 / 110

Erasmus+ | University of Copenhagen

### BSc in Computer Science | University of Milan

September 2018 – September 2021

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## CERTIFICATIONS & PROJECTS

Google Cloud Professional Machine Learning Engineer, AWS Machine learning Specialty

### BoardGames RAG | (Sorry, since I am marketing the product I cannot share any repo link)

Developed a system that enhances user experience by leveraging game-specific images and symbols, generating text-based outputs enriched with relevant visuals for more interactive and informative recommendations

### Thesis: Membership inference attacks on text-to-image models | [link](#)

The aim is to test diffusion generative models against membership inference attacks and retrieve sensitive data

Competitive programming | training & contests

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## SKILLS

Python, Data Engineering, Machine Learning, Artificial Intelligence, Data structures & algorithms, Azure, Databricks, Sharepoint, GCP, Dataproc, Composer, BigQuery, IAM, Airflow, AWS, API, Cloud Deployment, Apache Spark, SQL, NoSQL, RDBMS, Scikit-learn, GitHub, IBM DataStage, VectorDB, Qdrant, Streamlit, Langchain, Docker, Containers.