Giacomo Mossio | Resume

Status: M.Sc. student in Computer Science
Fields: AI, ML, DL, Data Engineering, Data Science
Techs: Python, Pytorch, Pandas, Git, IICS, SQL, GCP
Languages: Italian(Native), **English**(C1), **Spanish**(C1), **German**(A2)

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Summary

M.Sc. Computer Science student with **AI** specialization, focusing on Machine Learning, Deep Learning, and optimization algorithms. Currently working on large-scale power grid synthesis using Ant-Colony Optimization.
1.5 years of experience as a **Data Engineer**, designing scalable ETL pipelines and migrating data to cloud platforms (GCP, Azure) for **major international clients**.
Passionate about ML, automation, and **data-driven problem-solving**.
Target-focused, innovation-driven, and highly curious. Strong communicator who values **clarity** and alignment in teamwork.

Experience

Master Thesis Internship - Fraunhofer-Institut für Solare Energiesysteme - Freiburg   12/2024 - present

· Further developing **Ant-Colony Optimization** algorithms for power grid synthesis for the **whole Germany**
· Extending existing Python-based optimization tools to enhance **grid planning efficiency**
· Generating synthetic power grids from **real world maps** and simulating power loads
· Already reduced process runtime by **95%** by algorithm optimization

Master Project - Intelligent Embedded Systems Lab - Freiburg   01/2024 - 05/2024

· Developed **Active Learning** for medical audio classification achieving **90%** reduction in required labeled data
· Worked with pretrained **Eff-UNet** model on bowel sounds spectrograms
· If Active Learning was used from scratch, it would've saved **350 hours** of data labeling work

Data Engineer - Target Reply - Milan   03/2021 - 08/2022

· Worked **remotely** on many (international) projects for **big clients** such as Enel, Intesa Sanpaolo and FCA Bank
· Designed and Maintained **ETLs pipelines** with **Informatica IICS** and Informatica Powercenter
· Created **Cloud Migration** (real time) processes with GCP and Azure
· Developed the ability to **work independently**, managing complex data projects with minimal supervision while ensuring high-quality results.

Education

M. Sc. Computer Science - University of Freiburg (Germany)   10/2022 - present

· Specialization in Artificial Intelligence with focus on Machine Learning
· Gained **solid theory** on foundations of ML but also **practical skills**
· **Relevant courses**: Artificial Intelligence, Machine Learning, Deep Learning, Reinforcement Learning, Automated Machine Learning, Digital Health and Information Retrieval

B. Sc. Computer Science - University of Turin (Italy)   09/2017 - 12/2020

· Thesis: Social Commitments Mining analyzing Business Process Logs
· **1 year of Erasmus** in Las Palmas (Spain) gave me International experience improving adaptability and collaboration in diverse teams

Technical Skills

- **Programming**: Python (Pandas, Numpy, TensorFlow, PyTorch, MLflow, OpenCV, Geopandas, Matplotlib), SQL, Bash, Java

- **Machine Learning & Data Science**: Deep Learning, Active Learning, Reinforcement Learning, Auto ML

- **Data Engineering & Cloud**: ETL Tools (IICS, PowerCenter), Hive, Oracle, MongoDB; GCP, Azure

- **Tools & Platforms**: Git, Anaconda, Jupyter Notebook, Visual Studio Code, PyCharm, Linux, Jira, Slack, Teams

github.com/Jack748