

Loris Salsi

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Summary — Interested data scientist with experience in Python, PostgreSQL, and Machine Learning. Currently pursuing a Master's in Data Science at the University of Verona and working as an AI Engineer intern. Experienced in designing data pipelines and implementing scalable machine learning algorithms, with a strong passion for applying data-driven solutions to real-world problems.

Projects

Optimizing Solar Panel Plant Efficiency

- Energy Forecasting, Performance Classification, and Anomaly Detection.
- Implemented machine learning algorithms including Linear Regression, Lasso, Ridge, Decision Tree, Random Forest, KNN, LDA, and Logistic Regression.
- Analyzed and optimized the performance of solar panel systems through predictive analytics.

Chest X-Ray Image Classification and Data Augmentation

- Designed a pipeline for binary classification of chest X-ray images to detect "Infiltration" using TensorFlow and PyTorch.
- Implemented deep learning models, including MobileNetV2 and a custom Convolutional Neural Network (CNN).
- Addressed data imbalance through data augmentation techniques and balanced dataset construction.
- Improved classification metrics achieved by optimizing training pipelines and leveraging advanced preprocessing.

Binary Signal Recovery Using Metropolis-Hastings

- Developed an algorithm to recover binary signals from noisy data using the Metropolis-Hastings approach.
- Designed functions for data generation, likelihood calculation, and MCMC simulation.
- Improved signal processing accuracy through probabilistic modeling.

Skills

Software Power BI, Software R, Stata, Excel
Cloud Azure
Programming Python, SQL, R

Theory Machine Learning, Probability, Data Warehousing, Data Analytics, Big Data Algorithms, Optimization Theory

Education

Wrocław University of Science and Technology

2024 – 2025

Erasmus+ Program

- Machine Learning
- Big Data Algorithms
- Optimization Theory

University of Verona

2023 – 2025

Master's Degree in Data Science

- Probability for Data Science
- Statistical Learning
- Programming and Databases

University of Genoa

2020 – 2023

Bachelor's Degree in Economics (GPA: 4.0)

- Decision Making Methods for Economic Analysis
- Econometrics
- Statistics 1

Experience

Liguria Digitale S.p.A

Apr 2025 – Present

AI Engineer

- Improve and optimize RAG (Retrieval-Augmented Generation) systems for enterprise document processing
- Implement evaluation pipelines with Ragas framework for RAG system performance assessment and tracking with MLFlow
- Manage data workflows using DBeaver for database operations (embedding and indexing) with PostgreSQL

Patronato E.P.A.S and CAF Italia

Set 2021 – Jun 2022

Employee (Clerk) Tax Assistance

- Provided tax assistance to clients by managing and processing fiscal documentation.