Leonardo **Schiavo**

DATA SCIENTIST · MATHEMATICIAN

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Summary

Sporty and social Data Scientist–Mathematician with a love for theory and research. Always seeking challenges that push me to apply my abilities in creative problem-solving. Currently a Marie Curie PhD student at the Technical University of Madrid (UPM), working on XAI and time series.

Work Experience

Universidad Politécnica de Madrid
Madrid, Spain

MARIE CURIE MSCA PHD STUDENT - TOWARDS AN UNDERSTANDING OF ARTIFICIAL INTELLIGENCE (TUAI)
Sep. 2025 - today

- Develop a multivariate anomaly detection framework based on encoder–decoder generative models capable of producing counterfactual reconstructions for identifying abnormal behaviours in high-dimensional time series.
- Integrate XAI principles to attribute anomalies to specific variables and temporal regions, enabling transparent interpretation of cross-variable dependencies.
- Advance the methodology through three international research visits (UNINA, SUT, HVL) and validate the approach in industrial settings.

Accenture S.p.A.
Milan, Italy

INTERNSHIP - FUNCTIONAL ANALYST - CAPITAL MARKET AND FOREX RISK MANAGEMENT
Jun. 2024 - Sep. 2024

- Served as the key link between the client, internal IT department, and external data providers for a major Italian bank
- Managed daily forex risk exposure sensitivities using big data tools such as SQL, Excel, and Python
- Interpreted and structured financial client change requirements into AFU (Application Functional User) documents for IT
- Simulated and optimized the initial margin given as premium to central counterparts across various portfolio investment strategies

INFN (Istituto Nazionale di Fisica Nucleare)
Padua, Italy

INTERNSHIP - STUDENT - NUCLEAR PHYSICS AND PARTICLE ACCELERATORS
Jun. 2016 - Jul. 2016

- Developed code for statistical analysis of Rutherford's experiment, earning commendations from the chairman at the final conference
- Used technologies such as Python, C++, Gnuplot, Excel

Education

University of Padua
Padua, Italy

M.S. IN DATA SCIENCE
Apr. 2025

- **Final Grade:** 104/110
- **GPA:** 27/30
- **Thesis:** Predicting Auction Prices for Artworks Using Neural Networks: A Multimodal Approach
- **Main Courses:** Machine Learning and Deep Learning, Statistical Methods for High Dimensional Data, Time Series Analysis, Stochastic Methods for Finance

University of Padua
Padua, Italy

B.S. IN MATHEMATICS
Sep. 2021

- **Final Grade:** 101/110
- **GPA:** 27/30
- **Main Courses:** Probability Theory, Mathematical Finance, Advanced Statistics, Functional Analysis

Projects

Predicting Auction Prices for Artworks Using Neural Networks: A Multimodal Approach

PYTHON, PYTORCH, TENSORFLOW

- Developed a multimodal regression model to predict art auction prices, achieving performance comparable to human experts.
- Conducted an in-depth analysis of one of the largest digitally recorded art auction datasets in history.
- Leveraged embeddings and contrastive learning to integrate image, text, and numerical features.

Environmental Sound Recognition

PYTHON, TENSORFLOW, KERAS, LIBROSA

- Developed a state-of-the-art sound recognition algorithm achieving 90% accuracy on 50 classes [Code | Demo]
- Trained convolutional neural networks and autoencoders on big datasets (25 Gb)
- Implemented data augmentation techniques, increasing performance by 30% and reaching state-of-the-art results reported in recent papers.