

Gabriele Paganelli

Statistics MSc Student

CONTACTS

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PROFILE

Aspiring **Data Scientist** with a strong background in statistical modeling and machine learning, focused on turning **complex** and noisy data into insights that support real decisions.

I am particularly interested in understanding the **structure** behind data, combining mathematical reasoning with domain knowledge to produce interpretable and reliable models.

International academic experiences and interdisciplinary projects have shaped a collaborative and **impact-oriented** approach to data science, bridging theory and application.

SKILLS

Statistical & ML Methods

- Statistical modeling and inference (frequentist, Bayesian)
- Regression and classification methods (linear, non-linear, regularized)
- Time series analysis
- Tree-based learning methods
- Foundations of deep learning
- Model validation, interpretation and communication
- Network and clustering analysis for capability mapping
- Synthesis of qualitative and quantitative information

Programming & Tools

- R
- Python
- Stan
- LaTeX

EDUCATION

MSc in Statistics

- University of Padua 2024-present
- Methodological track, statistical modeling and data analysis
 - Advanced statistics, machine learning, and data-driven methods
 - Exchange semester at **Boston University**

BSc in Statistics for Technologies and Sciences

- University of Padua 2021-2024
- Final grade: 110/110 cum laude
 - Bachelor's thesis: "The Web of Fame: Network Analysis on Pantheon Data"
 - Exploratory data analysis, statistical inference and modeling

Scientific High School Diploma

- ISIS Einaudi, Dalmine 2016-2021
- Final grade: 100/100 cum laude
 - **Exchange year** in Canada (2019-2020)

EXPERIENCES AND PROJECTS

Italian Energy Market Analysis

2026

- Analysis of energy, gas, and renewable energy price time series
- Modeling using SARIMA, VAR, TFM, and cointegration models
- Study of market dynamics and interdependencies within the Italian energy sector

IceCube Neutrino Clustering and Source Modeling

2025

- Analysis of data from the IceCube Neutrino Observatory
- Modeling of neutrino sources using Bayesian mixture models
- Clustering and probabilistic inference on sparse, noisy data

Mice LFP Data: GRU-Transformer

2025

- Analysis of mouse local field potential (LFP) neural signals
- Development of a hybrid GRU-Transformer architecture for temporal pattern modeling

Simpson vs Griffin: Text Mining

2025

- Comparative analysis of The Simpsons and Family Guy transcripts
- Application of sentiment analysis, LDA and STM
- Interpretation of thematic structures and linguistic differences across series

Bachelor's Thesis: The Web of Fame

2024

- Network analysis on Pantheon historical datasets
- Construction and analysis of complex networks
- Research and interpretation of dynamics through graph-based statistical methods

LANGUAGES

Italian (native) | English (C1-C2) | Spanish (basic) | Latin (A1)