

Matilde Dolfato matilde (dot) dolfato (at) studbocconi.it | github.com/matildedol | [linkedin.com/in/matilde-dolfato/](https://www.linkedin.com/in/matilde-dolfato/)
Education Bocconi University, Milan, Italy

M.Sc. Artificial Intelligence Sep 2024–Present

- Courses: Linear Algebra, Algorithms for Opt and Inference, Software Eng, Deep and Reinforcement Learning, NLP, Computer Vision, Infomation Thoery

B.Sc. Economic and Social Sciences 2021–2024

- Advised by Prof. Jérôme Adda
- Final work: *Can Machine Learning Aid Econometrics?*

Universitat Pompeu Fabra, Barcelona, Spain
Exchange Program 2024

Università degli Studi di Milano Statale
B.Sc. Biotechnology, Single Courses 2022–2023
Experience Research fellow Nov 2025–Present

NOVA Information Management School, Lisbon

- Supervisor: Prof. Mauro Castelli
- Research area: explaining *double descent* phenomenon, what underlies stochastic gradient descent preference for smoothness, what is smoothness

Visiting Student Apr 2025–Nov 2025

Bocconi Institute for Data Science and Analytics (BIDSA)

- Mentor: Prof. Elia Brué
- Research area: Ricci curvature bounds for discrete spaces, optimal transport, convergence of diffusion processes and functional inequalities in spectral theory
- [Technical notes](#) and two presentations ([1](#),[2](#))

Founding and Board Member Sep 2025–Present

Bocconi Student Association for Mathematical Sciences

- Gave a [lecture on optimal transport](#)

Reading Seminars Information Geometry ([Technical notes](#)) Spring 2025

Research Internship Algebraic Topology Spring 2025

Department of Decision Sciences, Bocconi

Research Assistant Jun 2023–Dec 2023

Innocenzo Gasparini Institute for Economic Research, Bocconi

- Mentor: Prof. Massimo Marinacci
- Research area: re-interpretation and adaptation of the first quantitative analysis in social sciences by Cesare Beccaria (with tools of probability and decision theory)
Selected Projects [saLM-1: Self-Aware Language Model Ensemble](#) (LLM ensemble architecture)
- [Adversarial Robustness Pipeline](#) (CNN adversarial training)
- [Wordle Guesser](#) (Entropy-based guesser)
- [Movie Recommendation System](#) (Web app) Skills Programming: Python (proficient), R, STATA (advanced), C, C++ (beginner)
- Languages: Italian (native), English (proficient), Spanish (advanced)
- Other Interests Sailing, surfing, windsurfing; volleyball (ex-professional); mountain hiking and skiing; piano; theater and cinema