Matilde Dolfato

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EDUCATION	**Bocconi University, Milan, Italy**

Bocconi University, Milan, Italy

M.Sc. Artificial Intelligence — 2024 - Present
· Main Courses: Advanced Linear Algebra, Algorithms, DL and RL, Information Theory, Computer Vision, NLP, Complex Systems, Real and Fourier Analysis (audit)
· PhD Courses: Real Analysis II (Optimal Transport), Probability Theory II, Theory of Computation (audit)

B.Sc. Economic and Social Sciences — 2021 - 2024
· Advised by Prof. Jérôme Adda
· Final work: "Can Machine Learning Aid Econometrics?"
· Final grade: 110/110 cum laude

Universitat Pompeu Fabra, Barcelona, Spain
Exchange Program — 2024

Università degli Studi di Milano Statale
B.Sc. Biotechnology — 2022-2023
· Single courses: General Biology, Genetics

EXPERIENCE

NOVA IMS, Universidade NOVA de Lisboa, Portugal
Visiting Student — Nov 2025 - Present
· Visiting Prof. Mauro Castelli
· Research area: explaining double descent phenomenon, what underlies gradient descent preference for smoothness, what is smoothness

Bocconi Institute for Data Science and Analytics
Visiting Students Initiative — Apr 2025 - Present
· Mentor: Prof. Elia Brué
· Research area: Ricci curvature bounds for discrete spaces, optimal transport, convergence of diffusion processes and functional inequalities in spectral theory
· Member of Statistics and Mathematics reading group

Bocconi Student Association for Mathematical Sciences
Founding and Board Member, Co-Head Pure Math Division — Sep 2025 - Present
· Aim: introduce Bocconi students to mathematical sciences, through conferences with professors, collaborative study and chats

Department of Decision Sciences, Bocconi
Reading Seminars Information Geometry — 2025
Research Internship Algebraic Topology — 2025

Innocenzo Gasparini Institute for Economic Research, Bocconi
Research Assistant — 2023
· 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 architecture)	2025
Adversarial Robustness Pipeline (CNN adversarial training)	2025
Wordle Guesser (Entropy-based guesser)	2025
Movie Recommendation System (Web app)	2025

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