

# Matilde Dolfato

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EDUCATION	<b>Bocconi University, Milan, Italy</b> M.Sc. Artificial Intelligence · Courses: Linear Algebra, Algorithms for Opt and Inference, Software Eng, Deep Learning, Computer Vision, Infomation Thoery, Real and Fourier Analysis (audit)	Sep 2024–Present
	B.Sc. Economic and Social Sciences · Advisor: Prof. Jérôme Adda · Final work: <i>Can Machine Learning Aid Econometrics?</i>	2021–2024
	<b>Universitat Pompeu Fabra, Barcelona, Spain</b> Exchange Program	2024
	<b>Università degli Studi di Milano Statale</b> B.Sc. Biotechnology, Single Courses	2022–2023
EXPERIENCE	<b>Research fellow</b> NOVA Information Management School, Lisbon · Supervisor: Prof. Mauro Castelli · Research area: explaining <i>double descent</i> phenomenon, what underlies stochastic gradient descent preference for smoothness, what is smoothness	Nov 2025–Present
	<b>Visiting Student</b> 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 · <a href="#">Technical notes</a> and two presentations ( <a href="#">1</a> , <a href="#">2</a> )	Apr 2025–Nov 2025
	<b>Founding and Board Member</b> Bocconi Student Association for Mathematical Sciences · Gave a <a href="#">lecture on optimal transport</a>	Sep 2025–Present
	Reading Seminars Information Geometry ( <a href="#">Technical notes</a> ) Research Internship Algebraic Topology Department of Decision Sciences, Bocconi	Spring 2025 Spring 2025
	<b>Research Assistant</b> 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)	Jun 2023–Dec 2023
SELECTED PROJECTS	<b>saLM-1: Self-Aware Language Model Ensemble</b> (LLM ensemble architecture) <b>Adversarial Robustness Pipeline</b> (CNN adversarial training) <b>Wordle Guesser</b> (Entropy-based guesser) <b>Movie Recommendation System</b> (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	