

Matilde Dolfato

matilde (dot) dolfato (at) studbocconi.it | github.com/matildedol | 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, Computer Vision, Infomation Thoery, Real and Fourier Analysis (audit)	
	B.Sc. Economic and Social Sciences	2021–2024
	· Advisor: Prof. Jérôme Adda · Final work: <i>Can Machine Learning Aid Econometrics?</i>	
	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 <i>double descent</i> 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 · <i>Technical notes</i> and two presentations (1,2)	
	Founding and Board Member	Sep 2025–Present
	Bocconi Student Association for Mathematical Sciences	
	· Gave a <i>lecture on optimal transport</i>	
	Reading Seminars Information Geometry (<i>Technical notes</i>)	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	<i>saLM-1: Self-Aware Language Model Ensemble</i> (LLM ensemble architecture)	
	<i>Adversarial Robustness Pipeline</i> (CNN adversarial training)	
	<i>Wordle Guesser</i> (Entropy-based guesser)	
	<i>Movie Recommendation System</i> (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	