Matilde Dolfato

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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	
	· Two presentations (1,2) to the Stats and Maths reading group within BIDSA	
	Founding and Board Member, Co-Head Pure Math Division	Sep 2025–Present
	Bocconi Student Association for Mathematical Sciences	
	· Aim: introduce Bocconi students to mathematical sciences, through conferences with professors, collaborative study and chats	
	Reading Seminars Information Geometry	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)	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