

# Matilde Dolfato

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## EDUCATION

<b>Bocconi University, Milan, Italy</b>		
M.Sc. Artificial Intelligence	Sep 2024–Present	
· Courses: Linear Algebra, Algorithms for Opt and Inference, Software Eng, Deep Learning, Computer Vision, Infomation Thoery, Real and Fourier Analysis (audit)		
· GPA: 29/30		
B.Sc. Economic and Social Sciences	2021–2024	
· Advisor: Prof. Jérôme Adda		
· Final work: <i>Can Machine Learning Aid Econometrics?</i> , grade: 110/110 <i>cum laude</i>		
<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>	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	
<b>Visiting Student</b>	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	
· <a href="#">Technical notes</a> and two presentations ( <a href="#">1</a> , <a href="#">2</a> )	
<b>Founding and Board Member</b>	Sep 2025–Present
Bocconi Student Association for Mathematical Sciences	
· Gave a <a href="#">lecture on optimal transport</a>	
Reading Seminars Information Geometry ( <a href="#">Technical notes</a> )	Spring 2025
Research Internship Algebraic Topology	Spring 2025
Department of Decision Sciences, Bocconi	

<b>Research Assistant</b>	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

<a href="#">saLM-1: Self-Aware Language Model Ensemble</a> (LLM ensemble architecture)
<a href="#">Adversarial Robustness Pipeline</a> (CNN adversarial training)
<a href="#">Wordle Guesser</a> (Entropy-based guesser)
<a href="#">Movie Recommendation System</a> (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-agonistica); mountain hiking and skiing; piano; theater and cinema
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