

Email: matilde.dolfato@studbocconi.itGitHub: github.com/matildedol | LinkedIn: linkedin.com/in/matilde-dolfato

EXPERIENCE

Research Assistant*IGIER - Innocenzo Gasparini Institute for Economic Research*2023 - Current
Milan, Italy

- Research assistant for Prof. Massimo Marinacci in the fields of applied mathematics and economics
- Mathematical modeling and solving economic choice models to reinterpret and update an existing model on smuggling

EDUCATION

M.Sc. Artificial Intelligence*Università Bocconi*2024 - Current
Milan, Italy

- Relevant courses: Algorithms for Optimization and Inference, Software Engineering, DL and RL, Information Theory, Computer Vision, Linear Algebra

B.Sc. Economic and Social Sciences*Università Bocconi*2021 - 2024
Milan, Italy

- Final grade: 110/110 cum laude
- Relevant courses: Modern Statistical Computing, Statistics I and II, Econometrics, Empirical Research Methods, Mathematics I and II, Macro and Microeconomics

Exchange Program*Universitat Pompeu Fabra*Jan 2024 - Jun 2024
*Barcelona, Spain***B.Sc. Biotechnology***Università di Milano*2022 - 2023
Milan, Italy

- Single courses: General Biology and Genetics

PROJECTS

B.Sc. Thesis (2024)

Title: "Can Machine Learning Aid Econometrics? A Methodological Study on Heterogeneous Treatment Effects"

Advisor: Prof. Jérôme Adda

Explored and compared recent statistical and machine learning tools for causal inference, including non-parametric regressions, causal forests, and double machine learning

Image Compressor via IP (November 2024)

Image compression pipeline using K-means clustering and optimized via Integer Programming

SCIP Debug (November 2024)

Debugging and fixing SCIP source code for parsing LP and MPS formatted input files

Boolean Compiler and Evaluator (October 2024)

Program to parse and evaluate a custom input file, to output boolean tables for specified boolean expressions

Heart Disease Prediction (March 2024)

Big data analysis and predictive model fitting to forecast heart attacks, using random forests (with P. M. Ruiz)

The Forgotten Many (December 2023)

Paper aimed at inferring the roots of youth crime in Italy, through extensive data analysis and statistical modelling (with L. Chiappelli, L. D. Garbarino, G. Nespoli)

SKILLS

Programming: Python (advanced), R (advanced), STATA (intermediate), C and C++ (beginner)**Languages:** Italian (native), English (proficient), Spanish (advanced)**Other:** Data analysis, statistical modeling, research methods

OTHER INTERESTS

Volleyball (professional player)

Surfing and windsurfing

Mountain hiking and skiing

Piano (private classes)

Theater and cinema (theater student at *Art Voice Academy - Centro di Alta Formazione per lo Spettacolo* from 2015 to 2019)