

Piersilvio De Bartolomeis

[🏠 Personal Website](#) | [🎓 Google Scholar](#)

Education

Eidgenössische Technische Hochschule (ETH) Zurich

PHD IN COMPUTER SCIENCE

2023 – present

Zurich, Switzerland

- Advisors: Prof. Fanny Yang and Prof. Jonas Peters
- Research interests: robustness, causal inference, uncertainty quantification

Eidgenössische Technische Hochschule (ETH) Zurich

MSC IN DATA SCIENCE CUM LAUDE

2020 – 2022

Zurich, Switzerland

- Selected courses: Causality, Statistical Learning Theory, Mathematical Statistics, Reinforcement Learning

Hong Kong University of Science and Technology

VISITING STUDENT IN COMPUTER SCIENCE

2019

Hong Kong SAR

- Advisor: Prof. Gary Chan

Politecnico di Milano

BSC IN COMPUTER ENGINEERING CUM LAUDE

2017-2020

Milan, Italy

- Selected courses: Probability and Statistics, Mathematical Analysis, Linear Algebra, Algorithms and Principles of Theoretical Computer Science

Publications and Preprints

- [1] M. Mutti, R. D. Santi, **Piersilvio De Bartolomeis**, and M. Restelli. Challenging common assumptions in convex reinforcement learning. *Advances in Neural Information Processing Systems (NeurIPS)*, 2022.
- [2] M. Mutti, R. D. Santi, **Piersilvio De Bartolomeis**, and M. Restelli. Convex reinforcement learning in finite trials. *Journal of Machine Learning Research (JMLR)*, 2023.
- [3] **Piersilvio De Bartolomeis**, J. Clarysse, A. Sanyal, and F. Yang. How robust accuracy suffers from certified training with convex relaxations. arXiv preprint, 2023.

Research Experience

Eidgenössische Technische Hochschule (ETH) Zurich

RESEARCH INTERN

2021 – 2022

Zurich, Switzerland

- Advised by Prof. Cara Magnabosco and part of the Geobiology group
- Application of machine learning methods for the identification of protein secretion systems in bacterial genomes

Conference and Workshop Talks

Contributed Talk: "Certified defences hurt generalisation"

Workshop on Understanding Deep Learning Through Empirical Falsification at NeurIPS

2022

New Orleans, USA

Fellowships & Awards

Ermenegildo Zegna Founder's Scholarship

Scholarship of 5000\$ awarded to italian students visiting a leading institution abroad

2023

Full scholarship covering tuition and living expenses

Scholarship of 6000\$ from Politecnico di Milano, awarded based on academic merit

2019-2020

Scholarship for undergraduate studies abroad

Scholarship of 3000\$ from Politecnico di Milano, awarded to students visiting an institution abroad

2019

Best freshmen award

Prize of 1500\$ awarded to the best freshmen at Politecnico di Milano

2018

Teaching Experience

- Introduction to Machine Learning** (1000+ students)

TEACHING ASSISTANT

- Instructors: Prof. Andreas Krause and Prof. Fanny Yang
 - Designed homework assignments and held tutorial lectures
- 2023

Zurich, Switzerland

Machine Learning for Geobiology

TEACHING ASSISTANT

- Instructor: Prof. Cara Magnabosco
- Designed homework assignments and a Kaggle competition as part of the final course project

2021-2022

Zurich, Switzerland

Advanced Machine Learning

- Instructors: Prof. Joachim Buhmann and Dr. Carlos Cotrini
- Co-authored [lecture notes](#) for the course (10+ ★)

2020

Zurich, Switzerland

Volunteering

- TEDxBattipaglia**

ORGANIZER

- Organizing the first TEDx event in my hometown, bringing together high-level Italian speakers to share their ideas and insights with the local community
- 2023-present

LeadTheFuture

MENTOR

- LeadTheFuture is a non-profit mentoring organization and the largest merit-based STEM community in Italy. Currently, it counts more than 150 mentors, including researchers and entrepreneurs, and 500 selected mentees

2021-present

Technical Skills

- Programming Languages**

C, Java, Python, R, SQL, \LaTeX
- Tools & Technologies**

Git, JAX, PyTorch, SciKit, Pandas, NumPy, Spark
- Languages**

Native Italian, Fluent English, Beginner Japanese