

Piersilvio De Bartolomeis

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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, fairness, 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, Advanced Machine Learning, Computational Biomedicine

Hong Kong University of Science and Technology

VISITING STUDENT IN COMPUTER SCIENCE

2019

Hong Kong SAR

- Semester Project: Contributed to the development of an indoor localization system which is currently deployed on the university campus, under the supervision of Prof. Gary Chan

Politecnico di Milano

BSC IN COMPUTER ENGINEERING CUM LAUDE

2017-2020

Milan, Italy

- Selected courses: Probability and Statistics, Mathematical Analysis I and II, 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. *Conference on Neural Information Processing Systems (NeurIPS)*, 2022.
- [2] M. Mutti, R. D. Santi, **Piersilvio De Bartolomeis**, and M. Restelli. Convex reinforcement learning in finite trials. *Under submission to Journal of Machine Learning Research (JMLR)*, 2023.
- [3] **Piersilvio De Bartolomeis**, J. Clarysse, F. Yang, and A. Sanyal. Certified defences hurt generalisation. *Workshop on Understanding Deep Learning Through Empirical Falsification at NeurIPS, Oral*, 2022.
- [4] **Piersilvio De Bartolomeis**, A. Orvieto, and G. Parascandolo. Enhancing unit-tests for invariance discovery. *Workshop on Spurious Correlations, Invariance, and Stability at ICML*, 2022.

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

December 2022

New Orleans, USA

Honors & Awards

1st place, Oracle GraphML Contest Graph Machine Learning contest organised by Oracle Labs

2020

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)	2023
TEACHING ASSISTANT	Zurich, Switzerland
<ul style="list-style-type: none">Instructors: Prof. Andreas Krause and Prof. Fanny YangDesigned homework assignments and conducted tutorial lectures	
Machine Learning for Geobiology	2021-2022
TEACHING ASSISTANT	Zurich, Switzerland
<ul style="list-style-type: none">Instructor: Prof. Cara MagnaboscoDesigned homework assignments and a Kaggle competition as part of the final course project	
Advanced Machine Learning	2020
<ul style="list-style-type: none">Instructors: Prof. Joachim Buhmann and Dr. Carlos CotriniCo-authored lecture notes for the course (10+ ★)	
	Zurich, Switzerland

Volunteering

TEDxBattipaglia	2023-present
ORGANIZER	
<ul style="list-style-type: none">Organizing the first TEDx event in my hometown in southern Italy. Bringing together high-level Italian speakers to share their ideas and perspectives with the local community	
LeadTheFuture	2021-present
MEMBER	
<ul style="list-style-type: none">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	

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