

# Piersilvio De Bartolomeis

🌐 [pdebartol.github.io](https://pdebartol.github.io) | ✉ [pdebartol@ethz.ch](mailto:pdebartol@ethz.ch) | 🏠 12 November 1998 | 📍 Zurich, Switzerland

## 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

2022

New Orleans, USA

## Honors & Awards

1<sup>st</sup> 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

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<b>Introduction to Machine Learning</b> (1000+ students)	<b>2023</b>
TEACHING ASSISTANT	Zurich, Switzerland
<ul style="list-style-type: none"><li>Instructors: Prof. Andreas Krause and Prof. Fanny Yang</li><li>Designed homework assignments and conducted tutorial lectures</li></ul>	
<b>Machine Learning for Geobiology</b>	<b>2021-2022</b>
TEACHING ASSISTANT	Zurich, Switzerland
<ul style="list-style-type: none"><li>Instructor: Prof. Cara Magnabosco</li><li>Designed homework assignments and a Kaggle competition as part of the final course project</li></ul>	
<b>Advanced Machine Learning</b>	<b>2020</b>
<ul style="list-style-type: none"><li>Instructors: Prof. Joachim Buhmann and Dr. Carlos Cotrini</li><li>Co-authored <a href="#">lecture notes</a> for the course (10+ ★)</li></ul>	
	Zurich, Switzerland

## Volunteering

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<b>TEDxBattipaglia</b>	<b>2023-present</b>
ORGANIZER	
<ul style="list-style-type: none"><li>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</li></ul>	
<b>LeadTheFuture</b>	<b>2021-present</b>
MEMBER	
<ul style="list-style-type: none"><li>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</li></ul>	

## Technical Skills

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<b>Programming Languages</b>	C, Java, Python, R, SQL, $\text{\LaTeX}$
<b>Tools &amp; Technologies</b>	Git, JAX, PyTorch, SciKit, Pandas, NumPy, Spark
<b>Languages</b>	Native Italian, Fluent English, Beginner Japanese