

Pierriccardo Olivieri

I am a Ph.D. student in Artificial Intelligence in the Department of Electronics, Information and Bioengineering (DEIB) at **Politecnico di Milano** under the supervision of Professor *Nicola Gatti*. Currently, I am a visiting Ph.D. student at the Machine Intelligence through Decision-making and Interaction (MIDI) Lab at the **University of Texas at Austin**, under the supervision of Professor *Amy Zhang*. My research interests lie at the intersection of **reinforcement learning** and **representation learning**, with a focus on **generalization** and task adaptation via *unsupervised reinforcement learning*.

Work Experience

- Sep 2022–Feb 2023 **AI Research Engineer**, *AIRIC*, Milano, Italy
Researcher at the AI Research Innovation Center of Politecnico di Milano for the development of cutting-edge industrial AI solutions. Involved in various projects to bring AI approaches to real-world industrial problems.
Main technologies/topics: Python, Docker, Rust, NLP, LLM, Jax, Pytorch
- Jan 2022–Jul 2022 **Machine Learning Engineer**, *Virtual B s.r.l.*, Milano, Italy, Intern
Deployment of an end-to-end ML pipeline for financial products recommendation. Improved inference speed from hours to minutes.
Main technologies: Python, Docker, AWS, Django
- Mar 2019–Sep 2019 **Full Stack Developer**, *Bluccloud s.r.l.*, Sansepolcro, Italy, Contract
Adding features for CRM Web Application (search and filtering orders). Improved scalability and generalizability.
Main technologies: PHP, Laravel, Javascript, AngularJS

Education

- Apr 2025–Present **Visiting PhD Student**, *University at Texas Austin*, Austin, Texas
Research topics: Unsupervised Reinforcement Learning, Representation Learning
- 2022–Present **PhD Artificial Intelligence**, *Politecnico di Milano*, Milano, Italy
Research topics: Machine Learning, Multi-agent Learning, Deep Learning, Reinforcement Learning.
- 2019–2022 **MSc Computer Science & Engineering**, *Politecnico di Milano*, Milano, Italy
Thesis title: Algorithms for Subgame Solving in Adversarial Team Games
Relevant Expertise: Deep Learning, Machine Learning, Reinforcement Learning, Artificial Intelligence, RecSys, NLP, Multi-agent Systems
- 2015–2019 **BSc Computer Science & Engineering**, *Politecnico di Milano*, Milano, Italy

Selected Publications

[**NeurIPS, 2022**] Brian Hu Zhang, Luca Carminati, Federico Cacciamani, Gabriele Farina, **Pierriccardo Olivieri**, Nicola Gatti, Tuomas Sandholm, *Subgame Solving in Adversarial Team Games*.

[**AAAI, 2024**] Davide Maran*, **Pierriccardo Olivieri***, Francesco Emanuele Stradi*, Giuseppe Urso, Nicola Gatti, Marcello Restelli, *Online Markov Decision Processes Configuration with Continuous Decision Space*

[**CDC, 2025**] **Pierriccardo Olivieri**, Andrea Sanchini, Riccardo Spica, Nicola Gatti, Simone Formentin, *Precision UAV formation control via PGPE-enhanced NMPC*, 64th IEEE Conference on Decision and Control

[**ICML Workshop, 2024**] **Pierriccardo Olivieri**, Matteo Castiglioni and Nicola Gatti, *Delayed Adversarial Attacks on Stochastic Multi-Armed Bandits*, Workshop: Aligning Reinforcement Learning Experimentalists and Theorists 2024.

[**RLC Workshop, 2025**] **Pierriccardo Olivieri**, Fausto Lasca, Alessandro Gianola, Matteo Papini, *Do it for HER: First-order Logic Reward Specification in Reinforcement Learning*, Workshop on Programmatic Reinforcement Learning.

Relevant Projects

- (Kaggle) Image Classification Challenge (Deep Learning, Keras, Tensorflow, CNN)
- (Codalab) Challenge Image Segmentation of crops (Deep Learning, Pandas, Keras, Tensorflow)
- (Kaggle) Challenge Visual Question Answering (Deep Learning, VQA, NLP, Python, Pandas, Keras, Tensorflow)
- Pricing and Advertising strategy optimization for a fictitious company. (Multi-armed Bandits, Python, Numpy, ScikitLearn)

Other

- Languages: Italian (Native), English (TOEIC B2, English-taught M.Sc. program)
- Teaching: Informatics, *C language* (30 hours, 2023-2024)