Riccardo Zamboni

info
Tel. +39 334 3193685
Mail: ricc.zamboni@gmail.com
Linkedin: riccardo-zamboni-rz95
GitHub: ricczamboni.github.io

• About Me

I am a curious and enthusiast engineer. I am passionate about cooperative autonomous agents and collaborative intelligence and how to use them. I believe in technology's potential to lead to ethical innovations, and I am looking to ways towards them.

• Work Experiences

2023.07 2022.09	**External Collaborator** **Cefriel S.c.a.r.l. (Milan, Italy)**	• Scientific Supervision and Tutoring for the Master "AI&ML" offered by the Cefriel Research Center
2022.05 2022.01	**Research Fellow** **Polytechnic University of Milan (Milan, Italy)**	• Artificial Intelligence and Robotics Laboratory • Research Topics: Distributed Reinforcement Learning • Advisor: M. Restelli
2021.12 2021.10	**Embedded Software Developer** **Kalpa S.r.l. (Milan, Italy)**	• Development projects in Embedded Software Architectures • Focus: Embedded Software and Machine Learning
2021.10 2019.11	**Automation & Control Research Engineer** **e-Novia S.p.A. (Milan, Italy)**	• Innovation projects by driving development for Proof of Concepts and Minimum Viable Products in scalable algorithms based on state-of-the-art control and machine learning techniques • Focus: Dynamic Pricing, AgriTech, Intelligent Control, Embedded Software
2019.08 2018.09	**Visiting Researcher** **Tohoku University (Sendai, Japan)**	• Neuro-Robotics Laboratory • Focus: Motor Control, Neuroscience, Bio-inspired Learning • Research Topic: Bio-inspired control towards embodied intelligence • Advisors: Mitsuhiro H., Owaki D.

• Side Experiences

2022.09 2022.01	**Organizing Committee Member** **EWRL 2022 (Milan, Italy)**	• Diversity & Inclusion Chair of the European Workshop on Reinforcement Learning (EWRL 2022)
2023.06 2022.03	**Advisory Board Member** **JEMP (Milan, Italy)**	• Advisory activities about the strategic development of the association in the long-term trajectory
2018.09 2017.10	**Junior Consultant** **JEMP (Milan, Italy)**	• Management and design consulting projects in a dynamic, competitive and entrepreneurial oriented student association

• Education

Ongoing 2022.06	**Ph.D. in Information Technology** **Polytechnic University of Milan (Milan, Italy)**	• Research Topics: Distributed Reinforcement Learning, Industry 4.0 Advisor: M. Restelli • Industrial Partner: Siemens (AT)
2019.10 2017.09	**M.Sc. in Automation and Control Engineering** **Polytechnic University of Milan (Milan, Italy)**	• Focus: Data Analysis, Model Estimation, Advanced and Adaptive Control, Advanced Optimization, Motor Control • Final Grade: 110/110 Cum Laude, Avarage of grades: 30/30 • Grants: Roberto Rocca Scholarship 2019 (Top 1% students)
2017.07 2014.09	**B.Sc. in Mechatronics Engineering** **University of Trento (Trento, Italy)**	• Focus: Control Theory, Calculus, Algebra, Advanced Algorithms, Mechanical and Electronic Design, Electrical Systems • Final Grade: 110/110 Cum Laude • Grants: Student Merit Award 2017

• (Selected) Publications

R. Zamboni, D. Cirino, M. Mutti and M. Restelli. 2024. "The Limits of Pure Exploration in POMDPs: When the Observation Entropy is Enough". Proceedings of the 1st Reinforcement Learning Conference (RLC)

R. Zamboni, D. Cirino, M. Mutti and M. Restelli. 2024. "How to Explore with Blindness: State Entropy Maximization in POMDPs". Proceedings of the 41st International Conference on Machine Learning (ICML)

R. Zamboni, A. M. Metelli and M. Restelli. 2023. "Distributional Policy Evaluation: a Maximum Entropy approach to Representation Learning". Advances in Neural Information Processing Systems 36 (NeurIPS)

• Natural Languages

(Native) Italian
(Fluent, IELTS 7.5) English
(Intermediate, N3) Japanese

• Programming Languages

(Proficient) Python, MATLAB, MATLAB SIMULINK and C-Coder
(Advanced) C++
(Basic) (Postgre) SQL, C

• Research Interests

Distributed Reinforcement Learning
Un-supervised Reinforcement Learning
Multi-Agent Communication
Structure & Representation Learning