Matteo Cederle

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Education

2023 – Current **Ph.D., University of Padova, dept. of Information Engineering**
Project title: *Advancing Fairness and Efficiency in Smart Mobility: A Reinforcement Learning and Game Theoretic Perspective.*
Ph.D. funded by MOST - Sustainable mobility center.

2021 – 2023 **M.Sc. Control Systems Engineering, University of Padova**
Final grade: 110 cum laude. GPA: 29.034/30
Thesis: *Multi Agent Reinforcement Learning for Smart Mobility and Traffic Scenarios.*

2018 – 2021 **B.Sc. Information Engineering, University of Padova**
Final grade: 110 cum laude. GPA: 28.707/30
Thesis: *Control of robotic systems using wearable electromyography electrodes.*

2013 – 2018 **Scientific High School Diploma, Liceo Scientifico Ippolito Nievo, Padova**
Final grade: 100/100

Academic appointments

02-07/2025 **Visiting Researcher, ETH Zürich – Automatic Control Laboratory (IfA)**
Project description: *Reinforcement Learning for artificial currency-driven economies.*

Attendance to Graduate Schools

09/2024 **Summer course on Multi-Agent Reinforcement Learning (online)**
https://iiia.csic.es/en-us/marl-course/

06/2024 **7th Advanced Course on Data Science & Machine Learning - ACDL 2024**
https://acdl2024.icas.events/

Technical and Soft Skills

Languages **Italian:** Native. **English:** Advanced. **Spanish:** Intermediate
Coding Python, C++, Java, R, Matlab & Simulink, LaTeX
Soft Skills Academic research, teaching, training. Team work
Research Interests Reinforcement Learning, Deep Learning & AI, Smart Mobility Applications

Experience

Teaching Experience

2024 **Laboratory Tutor**, Master course in Machine Learning, University of Padova.
2023 – Current **Master's and Bachelor's thesis advisor for several students,** University of Padova.

Sport Experience

2017 – 2019 **Member of the Under 20 National Team,** Italian Fencing Federation.

Networks and Memberships

02/2025 – 07/2025 **Automatic Control Laboratory (IfA)**, ETH Zürich.

2023 – Current **AMCO research group**, University of Padova.

Awards and Achievements

2024 **Bosch Future Mobility Challenge**, Second place. Mentor of the team.

2023 **Bosch Future Mobility Challenge**, Second place. Member of the team.

2020 **Scholarship "Mille e una Lode"**, University of Padova.

Scholarship "Incentivazione allo studio", Italian Fencing Federation.

2019 **Scholarship "Incentivazione allo studio"**, Italian Fencing Federation.

2018 **Scholarship "Incentivazione allo studio"**, Italian Fencing Federation.

2014 – 2022 **Winner of several medals at National and International fencing competitions.**

Research Publications & Conference Talks

1. M. Cederle, M. Fabris, and G. A. Susto, "A fairness-oriented multi-objective reinforcement learning approach for autonomous intersection management," *J3C 2025 - Joint Conference on Computers, Cognition and Communication*, 2025. URL: https://arxiv.org/pdf/2507.09311.
2. M. Cederle, M. Fabris, and G. A. Susto, "Regulating spatial fairness in a tripartite micromobility sharing system via reinforcement learning," in *IES 2025 - Statistical Methods for Evaluation and Quality*, 2025, pp. 1089–1096. URL: https://ies2025.sis-statistica.it/book-of-short-paper/.
3. M. Cederle, A. Mazzucco, A. Demartini, *et al.*, "Explainable anomaly detection for electric vehicles charging stations," *J3C 2025 - Joint Conference on Computers, Cognition and Communication*, 2025. URL: https://arxiv.org/pdf/2507.15718.
4. M. Cederle, L. V. Piron, M. Ceccon, *et al.*, "A fairness-oriented reinforcement learning approach for the operation and control of shared micromobility services," *ACC 2025 - Americal Control Conference*, 2025. URL: https://arxiv.org/abs/2403.15780.
5. E. Isgandarov, M. Cederle, F. Chiariotti, and G. A. Susto, "Towards explainable anomaly detection in shared mobility systems," *J3C 2025 - Joint Conference on Computers, Cognition and Communication*, 2025. URL: https://arxiv.org/pdf/2507.15643.
6. M. Cederle, M. Fabris, and G. A. Susto, "A distributed approach to autonomous intersection management via multi-agent reinforcement learning," in *ATT@ECAI*, vol. 3813(1), 2024, pp. 1–15. URL: https://ceur-ws.org/Vol-3813/1.pdf.