RICCARDO RETTORE

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ABOUT ME

Graduate student pursuing a Master's in Control Systems Engineering, specializing in robotics and AI, with graduation expected in September 2025. Experienced in developing advanced algorithms for Deep Learning, Reinforcement Learning, Computer Vision and Control Systems designs. Passionate about applying AI and robotics to real-world challenges.

EDUCATION

Master degree in Control Systems Engineering, University of Padova, Italy

2023 - ongoing Relevant Coursework: Machine & Deep Learning, Reinforcement Learning, System Theory, Computer Vision, Control Engineering Laboratory, Convex Optimization, Robotics and Control I and II.

Bachelor degree in Mechatronics Engineering, University of Padova, Italy

2020 - 2023

Final score: 109/110

Relevant Coursework: Machine Design, Electrical Machined and drives, Digital and Analog Electronics, Metallurgy, Applied Thermodynamics, Oriented Programming, Calculus, Linear Algebra, Computer Architecture, PLC and industrial communication networks.

High-School diploma in Applied Sciences, IIS Newton Pertini, Camposampiero (PD)

2015 - 2020

AWARDS

3 times winner of scholarship "1000 e 1 lode" for the years 2021, 2022, 2023, awarded only to the top 3% best performing students of each degree.

Eramus Scolarship for the years 2024, 2025.

customer service skills in a dynamic environment.

Awarded by hometown for two consecutive years for ranking among the top 10 students in the town.

EXPERIENCE

Full-stack Developer2020 - presentFreelancerPadova

Experienced in collaborating with startups, primarily based in Padova, to design and develop full-stack applications using Flutter as the core programming language, complemented by various Google technologies. Skilled in building both front-end interfaces and back-end systems to deliver seamless, user-friendly solutions. Key projects are:

- **SDGs Managing App**: A cross-platform application enabling industries to input, track, and monitor compliance with sustainability rules and goals.
- **Restaurant and Hotel Management Apps**: Customized solutions for businesses to showcase menus, manage orders, and handle reservations efficiently.
- **Note-Taking App**: A mobile application designed for intuitive note-taking and organization, enhancing productivity for users.

Waiter 2018–2020

Da Mason Restaurant Trebaseleghe, PD

Worked evening shifts while studying in high school, developing strong time management, teamwork, and

SKILLS

Technologies	Matlab, Simulink, SolidWorks, Fusion 360, Blender, ROS, Tensorflow,
	PyTorch, Numpy, Pandas, Python, C, C++, Flutter, LaTeX, Git, Github Actions.
Soft Skills	Enjoy working in teams, with experience in managing high-pressure
	situations, adapting to shifting priorities, and utilizing problem-solving skills
	to find effective solutions.

PROJECTS

Reinforcement Learning for Swing-Up Double Pendulum Stabilization. Currently implementing a reinforcement learning agent to stabilize and perform the swing-up of a double pendulum system.

Aurora: Object Classification with Oriented Boosting. Developed a deep learning pipeline for object classification with an emphasis on boosting techniques for improved accuracy. (Github repository)

Unicycle Controller Design. Designed a series of controllers to stabilize a unicycle, using modern control theory and algorithms. (Github repository)

Computer Vision for Parking Spot Detection. Built a computer vision-based system to detect available parking spaces from images. (Github repository)

Control Systems for Double-Wheel Robot. Developed controllers for a double-wheel robot to stabilize and perform basic movements. (<u>Download Report</u>)

EXTRA-CURRICULAR ACTIVITIES

Founder & Active Member of a Cycling Team

Founded and actively participate in a local cycling team, organizing events and promoting cycling within the community.

Sports Enthusiast

Engaged in various outdoor sports, including cycling, hiking, running, trekking, and snowboarding, fostering a strong connection with nature and maintaining an active lifestyle.

Passion for Continuous Learning

Constantly engaged in personal projects to expand my knowledge, apply new tools, and explore emerging technologies.

LANGUAGE CERTIFICATIONS

English Language Proficiency

2021

B2 English, University of Padova TAL Test

CONTACTS AND PROFILES

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GitHub: github.com/RiccardoRettore

Portfolio: riccardo-rettore-portfolio