

Matteo Manzardo

Work experience

Mar 2025 - Jul 2025:	Fraunhofer Italia, Bozen (BZ), Italy Researcher
Jan 2024 -Feb 2025:	Autotest Südtirol, Franzensfeste (BZ), Italy R&D Engineer
Aug 2023 - Nov 2023	Free University of Bozen/Bolzano, Bozen (BZ), Italy Smart Mini Factory Lab Commissioned Research
Jan 2022 - Jan 2023	Field Robotics Lab South Tyrol, Bozen (BZ), Italy Working student (120 h)
Jul 2021 - Aug 2021	‘Mollificio Cappeller s.p.a.’, Cartigliano (VI), Italy Research and Development Department
Aug 2018 - Aug 2019	‘Pizzeria Cuore di Pizza’, Thiene (VI), Italy Delivery man.
Jun 2017 - Jul 2017	‘Clonakilty Park Hotel’, Clonakilty (Cork), Ireland Children’s entertainer.
Jan 2016 - Apr 2016	‘Studio di Consulenza Tributaria E. Caltran’, Thiene (VI), Italy Project ‘Alternanza scuola-lavoro’, intern.

Education

Nov 2023 - to date	Università degli Studi di Genova, Genova (GE), Italy PhD Dottorato di Interesse Nazionale host institution: Free University of Bolzano/Bozen, Bolzano (BZ), Italy Supervisor: prof. Vidoni Renato
Jul 2025 - to date	University of Oxford, Oxford, United Kingdom. Visiting Scholar, supervised by prof. Maurice Fallon and Perla Maiolino.
Sep 2021 - Jul 2023	Free University of Bolzano/Bozen, Bolzano (BZ), Italy Master in 'Industrial and Mechanical Engineering' Major in Automation Grade: 110 cum Laude/110 Thesis title: ' <i>On the safe and effective motion planning for collaborative workstations</i> ', supervised by prof. Vidoni Renato
Sep 2019 - Sep 2021	Free University of Bolzano/Bozen, Bolzano (BZ), Italy Bachelor in 'Industrial and Mechanical Engineering' Major in Mechanics Grade: 110 cum Laude/110 Thesis title: ' <i>Path planning of an accurate end-effector of a trimming robot</i> ', supervised by prof. Vidoni Renato
Sep 2018 - Aug 2019	University of Trento, Trento (TN), Italy Bachelor in 'Economics and Management'
2013 - 2018	Liceo Statale 'F. Corradini', Thiene (VI), Italy Scientific High School Grade: 100/100
2018	5 th place at 'Italian Games of Chemistry', national level. 19 th place at 'Mathematical Olympiad - Teams Event', national level. Qualification for the national finals of 'Physics Olympiad'.
2017	15 th place at 'Italian Games of Chemistry'. 5 th place at 'Mathematical Olympiad - Teams Event', national level.

Scientific Papers

JOURNAL PAPERS:

- Manzardo M, Vidoni R, *Safe and Fluent Industrial Human Robot Collaboration Via Combination of PFL, SSM and Escape Trajectories*, IEEE Robotics and Automation Letters (RA-L), 2025.
- Manzardo M, Carabin G, Vidoni R, *Optimal path planning method for a bush trimming robot with a non-omnidirectional end-effector*, IEEE Robotics and Automation Letters (RA-L), 2024.

CONFERENCE PAPERS:

- Ciaghi D, Manzardo M, Gasparetto A, Vidoni R, Gualtieri L, *Human Motion Tracking for Action Recognition through wearable sensors: an IMU Based Approach*, 2nd International Conference and Exhibition „Mechanical Engineering Solutions“ (MES 2025), Yerevan, Armenia, September 2025.
- Manzardo M, Vidoni R, *On the improvement of the combination of Power and Force Limiting and Speed and Separation Monitoring for an effective Human Robot Collaboration*, 6th International Conference on Industry 4.0 and Smart Manufacturing (ISM 2024), Prague, Czech Republic, November 2024.
- Manzardo M, Yicheng Y, Rojas RA, Shahidi A, Vidoni R, Hüsing M, Corves B, *Redundant Hybrid Robots for resilience in future smart factories*, 3rd International Symposium on Industrial Engineering and Automation (ISIEA 2024), June 2024.
- Manzardo M, Carabin G, Gualtieri L, Vidoni R, *Cycle time reduction through redundancy optimization in industrial robotic tasks*, 16th IFToMM World Congress [WC2023], November 2023.
- Manzardo M, Carabin G, Vidoni R, *Design of a path planning method for a robotized optimal trimming*, 4th International Conference of IFToMM Italy (IFIT2022), September 2022.

Invited Talks

CONFERENCES:

- I-RIM 2024, Rome, Italy. Workshop *Trends and challenges in collaborative robotics: perception, motion planning and control*, Organized by Scalera Lorenzo, Terreran Matteo, Villagrossi Enrico. Talk title: *Safe and adaptive industrial collaborative robotic applications: examples and case studies*.

Reviewer for:

JOURNALS:

Aug 2024 - to date: IEEE Robotics and Automation Letters (RA-L).
Feb 2025 - to date: Production & Manufacturing Research, Taylor&Francis.

CONFERENCES:

IEEE ICRA 2025: IEEE International Conference on Robotics and Automation, Atlanta, United States of America.
ISM 2024: International Conference on Industry 4.0 and Smart Manufacturing, Prague, Czech Republic.

Programming Skills

ROS2, Matlab, Python, C++, Adept V+, R Studio.

Language Skills

Italian: Mother tongue
English: C1 (Test of the Free University of Bolzano)
German: B2 (Goethe Institut; Lesen:77/100, Hören 80/100, Schreiben: 98/100, Sprechen: 100/100)

Free Time

Feb 2018 - to date 'Associazione Italiana Arbitri', Schio (VI), Italy
Football referee, regional level.

I used to take part in the activities of 'San Sebastiano' parish, Thiene (VI), Italy as member of the 'Gruppo Giovani' and, then, as children's entertainer.

I have been member for 7 years of the Scout Association 'Thiene 2', Thiene (VI), Italy.

As sport, I used to compete in climbing and skiing. Nowadays I practice them just in my free time.



Oxford, 29.oct.2025

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