

SKILLS

Tools and Languages	C++, Python , Java, Matlab/Simulink, Git, \LaTeX
Others	V-Rep, Dart, Gazebo, ROS, Arduino
OS	Windows and Linux
Communication	Italian (Mother tongue), English and French (Fluent).

WORK EXPERIENCE

- Apr'23: **Post-Doctoral Fellowship position, in the Legs + Walking Lab**(Shirley Ryan Ability Lab, Chicago). Supervisor: Jose Pons. Design strategies for Human-Exoskeleton interaction. Exoskeletons, HRpl, **Machine-Learning**.
- Dec'19-Dec'22: **Phd position in Human-Robot mutual collaboration** (CRAN and LORIA Nancy). Supervisors: Alexis Aubry (CRAN), Serena Ivaldi (LORIA). Find optimal strategies to improve human robot collaboration in a shared environment. Robot manipulators, **Machine Learning**.
- Feb-June'22: **Guest researcher at Delft University of Technology** (TU-Delft, Netherlands). Supervisors: Luka Peternel. Human adaptation in different robot control modes during human-robot interaction. HRpl.
- Mar-Sept'19: **Research Intern**. (Loria, Inria Nancy) Supervisors: Serena Ivaldi, Jean-Baptiste Mouret. Grasp Planning exploiting human feedback. Autonomous grasp planning, **Machine Learning**, Computer Vision.

EDUCATION

- **Phd in Human-Robot mutual collaboration**, CRAN and Inria research center, Nancy (FR), 2019-2022, Acquired skills: Controls, machine learning, and data analysis.
- **Master Degree in Artificial Intelligence and Robotics**, Sapienza University in Rome (2019). Acquired skills: Robotics, Controls, Machine Learning, Planning, and Data mining. **Thesis Title:** Human-Guided Grasp Planning, under the supervision of Serena Ivaldi (INRIA Nancy) and Giuseppe Oriolo (Sapienza University, Rome)
- **Bachelor Degree in information Engineering**, Padua University (2017). Acquired skills: computer science, electronics, telecommunications, controls, mechanics, physics and mathematics.

MAJOR PUBLICATIONS

- Vianello et al. "Deep-Learning Control of Lower-Limb Exoskeletons via simplified Therapist Input." ICORR 2025.
- Vianello et al. "Exoskeleton-Mediated Physical Human-Human Interaction for a Sit-to-Stand Rehabilitation Task." ICRA, 2024.
- Vianello, et al. "The effects of role transitions and adaptation in human-robot collaboration." Journal of Intelligent Manufacturing, (2023).
- Vianello et al. "Latent ergonomics maps: Real-time visualization of estimated ergonomics of human movements." Sensors (2022).
- Vianello et al. "Human-humanoid interaction and cooperation: a review." Current Robotics Reports (2021).
- Vianello et al. "Human posture prediction during physical human-robot interaction." IEEE Robotics and Automation Letters (2021).

ACTIVITIES

- '24/'25: Special Issue Guest editor: Journal of NeuroEngineering and Rehabilitation and Journal of Wearable Technologies.
- Sept'24: Special Session organizer at International conference in Neuro-Rehabilitation (ICNR)
- Jun'23-24: Workshop organizer at Summerschool in Neuro-Rehabilitation (SSNR)
- Jul'21: Track Co-Chair at Applied Human Factors and Ergonomics Conference (AHFE)
- June'21: Demonstration in Exhibition for Smart Automation and Robotics (Automatica)

AWARDS

- May'24: IEEE ICRA Best Paper Award in Medical Robotics and Finalist in Best Paper Award
- March'23: Finalist for Best PhD thesis 2023 by GDR MACS
- Jul'21: Finalist of Humanoids 2020 Best Interactive Paper Award
- Feb'19: Student Honors Program at Sapienza University
- Jun'19: Bordoni Scholarship at Sapienza University