

Leonardo Pesce

Polytechnic of Milan | Computer Science Engineer: Artificial Intelligence
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Research experience

Research activity on Reinforcement Learning at AIRLab

FEB 2022 - PRES

Polytechnic of Milan, Supervisor Professor Marcello Restelli

- Studying on the achievement of (model-free) deterministic policy learning with deterministic exploration (with applications on safe and constrained exploration).
- Team member of [Robot Air Hockey Challenge 2023](#): study and development of a robotic learner in a constrained environment.
- [Past project](#): developed an autonomous Formula Student car capable of completing several laps and generalizing starting from a single track with SAC.

Binary hypercubes and error-correcting codes in problems involving DNA

JUN - JUL 2017

University of Alberta (Canada), Supervisor Professor Charles Doran

- Created and studied graphs based on hypercube relations between amino acid structures and studied relationships based on Hamming distance value
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Working experiences

Path Planning Engineer (Driverless Department)

[Dynamis PRC](#), Polytechnic of Milan, 2022 - 2023

- *Study and research* of the optimal trajectory: generation, analysis, choice of the possible path based on the car's aerodynamic parameters, and creation of the speed profile. (ROS, Python)
- **2nd place** overall driverless in Germany and Hungary in August 2022 (FSG and FSEAST).

Head of Telemetry and Data Management System (TDMS)

[Dynamis PRC](#), 2019 - 2022

- Managed the 5-member team responsible for developing the TDMS, whose primary jobs were to: control all the car's sensors, provide real-time vehicle status, and analyze collected data to improve the performance.
- Redeveloped the TDMS. The hardware and software improvements increased the throughput by 5.
- Held several lectures on software engineering techniques to a class of 40+ new team members.
- **4th place** overall in October 2021 (FSATA competition).
- Developed (in C and Java): Data Control Unit, Telemetry Station, and Battery Management System

Data Science Engineer

[BitCorp: Intelligence Creative Lab](#), Milan, 2019 - 2020

Bitcorp is an intelligence agency that led me to work with the ROS (Special Operation Group) of Italian Carabinieri to install their database server and manage their data pipeline, which was later helpful in intelligence research operations. For example, in the capability to automatically track and monitor illegal activities.

Blockchain Engineer

[Plug-in Srl](#), Milan, JUN - JUL 2019

Developed an unalterable legal document storage system based on a smart contract on the Ethereum blockchain.

Education

University Polytechnic of Milano

2022 - 2024

Master of Science: Computer Science Engineering: Artificial Intelligence (GPA 29.0/30.0)

Alta Scuola Politecnica (Polytechnic of Milano and Polytechnic of Torino) A multidisciplinary and elective (<1%) international honors program	2022 - 2024
University Polytechnic of Milano Bachelor of Science: Computer Science Engineering (GPA 27.62/30.0, graduation grade 107/110)	2019 - 2022
Dual Diploma Mater Academy USA High School diploma (In addition to the Italian Diploma)	2014 - 2019

Associations

Alta Scuola Politecnica (student representative, XIX Cycle) SEP 2022 - PRES
Selected for *merit* and *leadership* skills, as the student representative to communicate with the board, propose new ideas, be a reference, and contribute to the success of our cycle.

Lead The Future (Mentee) SEP 2022 - PRES
Choose as one of the *best students in STEM* (in Italy) for the LTF mentorship program, where I'm placed side by side with experts in AI and ML.

Honors and certifications

- IELTS: Overall score 7.5 / 9.0 (2021)
- *Scholarship* Alta Scuola Politecnica (2022-2024)
- *Best freshman award* for students with exceptionally high merit, Polytechnic of Milan (2020)
- Math Olympic Games & Computer Science Olympic Games at a *national level* (2018)
- Summer Math Camp, University of Alberta 2016, certificate of attendance (Edmonton, Canada)
- Summer Math Camp, Areteem Institute 2015, certificate of attendance (Boston College, Massachusetts, USA)