

# Gianvito Losapio

MSC IN ARTIFICIAL INTELLIGENCE

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“The most intriguing aspect of artificial intelligence is human intelligence.”

## Education

### Politecnico di Milano

PHD IN ARTIFICIAL INTELLIGENCE

Milan, Italy

Dec. 2023 - Present

- Reinforcement learning for real-time control of critical network infrastructures
- Funded by EU Horizon Project *A4REALNET* (4M €, 16 partners)
- Supervisor = Marcello Restelli

### University of Genoa

M.S. IN ARTIFICIAL INTELLIGENCE

Genoa, Italy

Oct. 2019 - Mar. 2022

- Scholarship holder at Scuola Superiore IANUA (honour programme for top 5% students).
- Thesis: *Efficient Machine Learning for new physics discoveries*
- GPA: 29.17/30 - Final grade: 110/110 with honours

### Polytechnic University of Bari

B.S. IN COMPUTER SCIENCE AND AUTOMATION ENGINEERING

Bari, Italy

Oct. 2016 - Oct. 2019

- Outstanding Thesis Award (awarded by the Italian Minister of Economic Development)
- Thesis: *Deep learning and object detection techniques for the photo-identification of cetaceans*
- GPA: 28.72/30 - Final grade: 110/110 with honours

## Experience

### Politecnico di Milano

RESEARCH FELLOW

Milan, Italy

May 2023 - July 2024

- Topic = Machine Learning (applied) / Supervisor = Marcello Restelli  
*Distributed RL for the job shop scheduling problem in industrial production plants*  
→ Joint work with a large high-tech company

### Machine Learning Genoa Center (MaLGa)

RESEARCH FELLOW

Genoa, Italy

Mar. 2020 - Oct. 2022

- Topic = Machine Learning (theory) / Supervisor = Agnese Seminara  
*Generalization properties of POMDP solvers with simulation of animal behaviour*

MASTER STUDENT

- Topic = Machine Learning (applied) / Supervisor = Lorenzo Rosasco  
*Discovering new particles at the Large Hadron Collider, CERN*  
→ Joint work with CERN (Switzerland), MIT (Usa). Co-authored 3 papers

### European Organization for Nuclear Research (CERN)

SUMMER RESEARCH STUDENT

Geneva, Switzerland

Jun. 2021 - Aug. 2021

- Topic = Machine Learning (applied) / Supervisors = Thomas Owen James, Emilio Meschi  
*40 MHz Scouting at the L1 trigger of the CMS experiment.*  
→ Acceptance rate: 1500 applications for 40 positions (3%). Publication of a technical report

### National Research Council of Italy (CNR)

INTERN

Bari, Italy

Apr. 2019 - Oct. 2019

- Topic = Machine Learning (applied) / Supervisors = Vito Renò, Rosalia Maglietta  
*Object detection for the photo-identification of cetaceans*  
→ Joint work with two private research companies (Italy, Portugal). Co-authored 2 papers

## Publications

- Sep 2024 **State and action factorization in power grids**  
Losapio G., Beretta D., Mussi M., Metelli A.M., Restelli, M.  
*ECML-PKDD 2024, Machine Learning for Sustainable Power Systems workshop*
- Oct 2022 **Learning new physics efficiently with nonparametric methods**  
Letizia, M., Losapio G., Rando M., Grosso, G., Wulzer, A., Pierini, M., Zanetti, M. & Rosasco L.  
*European Physical Journal C*
- Jul 2022 **Smart balancing of E-scooter sharing systems via deep reinforcement learning: a preliminary study**  
Losapio G., Minutoli F., Ferrando A., & Mascardi V.  
*22nd Workshop "From Objects to Agents" (outstanding mention)*
- Dec 2021 **Efficient kernel methods for large scale problems in HEP**  
Letizia, M., Losapio G., Rando M., & Rosasco L.  
*NeurIPS 2021 (Machine Learning and the Physical Sciences Workshop)*
- Sep 2021 **Machine Learning for 40 MHZ Scouting at CMS**  
Losapio G.  
*CERN Openlab Technical Report*
- Oct 2020 **Lightweight and efficient convolutional neural networks for recognition of dolphin dorsal fins**  
Losapio G., Maglietta R., Politi T., Stella E., Fanizza C., Hartman K., ... & Renò V.  
*IMEKO TC-19 International Workshop on Metrology for the Sea*
- May 2020 **Combined color semantics and deep learning for the automatic detection of dolphin dorsal fins**  
Renò, V., Losapio G., Forenza, F., Politi, T., Stella, E., Fanizza, C., ... & Maglietta, R.  
*Electronics*

## Other activities

- Sep 2024 Talk + poster presentation at **ECML-PKDD 2024** *Vilnius, Lithuania*
- Jul 2024 Participation at the **Oxford Machine Learning Summer School 2024**. Main sponsors: Google DeepMind, G-Research, Jane Street *Oxford, UK*
- Sep 2022 Poster presentation at the **Mediterranean Machine Learning Summer School 2022**. Main sponsors: Google DeepMind, Università di Milano-Bicocca, Apple, Reply, Bending Spoons *Milan, Italy*
- Sep 2021 Awarded the prize **SeaFuture Award 2021** for the Bachelor thesis by the Italian Minister for the Economic Development *La Spezia, Italy*
- Apr 2021 **Raised 20,000€** from University of Genoa to co-found *AI Spot*, a non-profit student association committed to organizing workshops, conferences and cultural events focused on AI and its impact on society *Genoa, Italy*
- Jan 2021 Poster presentation at the **Mediterranean Machine Learning Summer School 2021**. Main sponsors: Google DeepMind, Università di Milano-Bicocca, Gruppo Sella, Bending Spoons
- Oct 2020 Oral presentation at the **International Workshop on Metrology for the Sea**. Organizers: University of Naples Parthenope, National Research Council of Italy, Italian Navy
- Aug 2020 Joined **LeadTheFuture**, a leading mentorship non-profit organization for top-performing italian students in STEM (acceptance rate <20%)
- Nov 2019 Innovation Team **Award C1A0 hackathon, Diving into the electricity market**. Main sponsors: IREN, Camera di Commercio Genova, DigitalTree, AvanaDe *Genoa, Italy*

## Skills

**Programming Languages**    Advanced: Python | Moderate: Java, C/C++, Matlab  
Italian: native speaker | English: independent user (IELTS 7.5, CEFR level C1)