

Education

University of Trento

Sept 2023 – present

MSc in *Artificial Intelligence systems*

- Current GPA: **28.5/30**
- In-depth knowledge and hands-on experiences on *Machine learning, Automatic Reasoning, Computer Vision, Natural language processing, Knowledge representation, Automated planning, Human-Machine interaction*

University of Rome, Sapienza

Sept 2020 – Nov 2023

BSc in *Computer Engineering*

- Final Grade: **107/110**
- Focus on *foundational and computer engineering sciences, Software Development and Databases*

Experience

AI Developer Intern

Jul 2025 – Sep 2025

@ [Mountain Maps](#), Trento, Italy

- Implemented a *security layer* to filter irrelevant user queries to a *Conversational Agent for Tourism*.
- Designed and integrated the system with Python, REST APIs, Google Model Armor, .NET, and C#.
- Added a *RAG system* to improve the agent's responses using LangChain and MongoDB.

Machine Learning Engineer Intern

[GitHub](#) Oct 2024 – Dec 2024@ [LeMur](#), Trento, Italy

- Applied *Machine Learning* and *Constraint Programming* methods to optimize *silicone thread production*, minimizing *energy consumption* and *workload per person*.
- **Winners** of an *Internal University Competition* of AI students among 5 teams.

Data Engineer Intern

Nov 2024 – Jan 2025

@ [WTWH Media](#), Remote

- *Transformed, tested, deployed, and documented* data models for a *Business Media* company.
- *Optimized* media marketing tabular data and enhanced dbt models, reducing *data warehouse costs* by 2%.

Projects

EvoGrid: Bio-inspired Optimization for Renewable Energy Systems

[GitHub](#)

- Built a Python framework using NSGA-II, MOPSO, and GA for multi-objective optimization.
- Modeled solar-wind-battery systems balancing cost and performance with *Pareto-front*.

Automated Planning in Healthcare Facilities

[GitHub](#)

- Designed PDDL models for robotic agents in hospitals.
- Solved tasks like *medical delivery* and *patient assistance* using PlanSys2.

Test-Time Adaptation with Dynamic-Cache Adapter

[GitHub](#)

- Replicated [TDA](#) and added *Waiting List* to boost OOD performance.

Anomaly Detection on Wine Grapes

[GitHub](#)

- Built a Computer Vision pipeline for *Precision Agriculture* in the H2020 European Project [Canopies](#).

Methods for Structure Analysis in MIR

[GitHub](#)

- Applied *structure analysis* for *Music Information Retrieval* using DSP and Librosa.

Conductor Interface with Glove and Baton

[Website](#)

- Built an *interactive music interface* with IMU-glove and accelerometer baton.
- Linked Arduino and Raspberry Pi to Pure Data, ensuring low latency.

Conferences & Extra

Hackathon: Seismic Detection Across the Solar System

[Github](#) Oct 2024@ [2024 NASA Space Apps Challenge](#), Venice, Italy

- Built a *spectrogram-based AI* to detect *Apollo mission seismic quakes*, achieving *state-of-the-art results* and ranking **Top 5/30 teams**.

Mediterranean Machine Learning Summer School 2024

Sept 2024

@ [Università di Milano-Bicocca](#), Milan, Italy

- Attended lectures and hands-on sessions on *Deep Learning, Probabilistic Models, Causal Inference, and Reinforcement Learning*.
- Hosted by Google DeepMind. Acceptance rate: ~ 20%