

PERSONAL INFORMATION

Marco Montagna



EDUCATION AND TRAINING

2023 - 2024 PhD in Data Science

Sapienza University of Rome, Rome (Italy)

I started my PhD in Artificial Intelligence. My research focuses on Graph Neural Networks, particularly Topological Deep Learning. The PhD is cofinanced by NHAZCA, a Sapienza startup devoted to earth monitoring for risk assessment. In the company, I have been developing modern machine learning solutions for assessing risks of landslides on vast areas, with particular interest on how such risks affect near infrastructures.

2023 Student Honor Program in Artificial Intelligence and Robotics

Sapienza University of Rome, Rome (Italy)

I participated in and completed the honor program for my course. Only the top 10% of students of the course were given the chance to work on a project with a Professor of their choice which resulted in an additional certificate. My work tackled soft robots and their control theory, with particular attention to the automatic learning of iterative terms that allow the control of these robots without full knowledge of their dynamic model.

2021 - 2023 Master's degree in Artificial Intelligence and Robotics

Sapienza University of Rome, Rome (Italy)

I graduated from computer engineering at Sapienza. This master's degree focuses in part on artificial intelligence and in part on robotics. I graduated in July 2023 with a thesis entitled *Graph pooling with dynamic node selection*, which tackles graph neural networks, particularly focusing on Graph Transformers.

Final grade: 110/110 cum laude*Dissertation Title:* Graph Pooling with Dynamic Node Selection*Supervisor:* Prof. Simone Scardapane

2018 - 2021 Bachelor's Degree in Physics

Sapienza University of Rome, Rome (Italy)

During my bachelor's degree, I acquired a solid education in mathematics, general physics and modern physics. I started to approach machine learning and artificial intelligence, becoming more passionate, and eventually deciding to continue my studies in this field. Thanks to the many laboratory courses I also learned to work in a group and to appreciate collaboration.

Final grade: 104/110*Dissertation Title:* Applicazioni di graph neural networks per la classificazione di jets adronici*Supervisor:* Prof. Stefano Giagu

2009 - 2014 High school diploma

Liceo Scientifico Enzo Piccinini, Pesaro (Italy)

During this period of studies, I learned the basic concepts of mathematics, physics, biology, chemistry and how to apply the scientific method. Furthermore, I developed my critical spirit through the studies of philosophy, history, and Italian, English, and Latin literature. In 2012-2013 I frequented a high school in Santa Monica, California, for a year.

Final grade: 110/110 cum laude

WORK EXPERIENCE

2014 – Present Private lessons of Physics and Maths to students of all ages

PUBLICATIONS

2022 *Regulation by Iterative Learning in Continuum Soft Robots*

Marco Montagna, Pietro Pustina, Alessandro De Luca.- (2022), pp. 151-152. (Intervento presentato al convegno 4th Italian Conference on Robotics and Intelligent Machines tenutosi a Roma, Italy) [10.5281/zenodo.7531330].

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C1	C1	C2
Cambridge First Certificate (FCE) C1					

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills

Used to teamwork: during the university years, I often worked in groups in the laboratory courses, finding myself very well collaborating.
 Intercultural skills: during my exchange year I had the opportunity to meet many different cultures.

Organisational / managerial skills

Good management and organization skills, acquired with numerous experiences in working groups and study groups.
 Used to work under pressure with good control and negligible impact.

COMPUTER SKILLS

Programming languages C, C++, MATLAB, Python, Java, Kotlin

Other softwares LaTeX, Office package

Online Courses

Following my developing passion for artificial intelligence, in the last few years I completed different online courses:

- *Machine Learning* by Stanford University on Coursera
- *Machine Learning with TensorFlow on Google Cloud Platform* on Coursera
- *Perform Foundational Data, ML, and AI Tasks in Google Cloud* on Google Cloud Training