

Lorenzo Liuzzo

PHYSICIST · DEVELOPER · SOFTWARE ARCHITECT

📍 via Carlo Perini, 22, 20157, Milan, Italy

🎂 9 September 2002 ✉️ lorenzoliuzzo@outlook.com 🌐 [lorenzoliuzzo](https://lorenzoliuzzo.com)



Physicist and developer specialized in AI, combining machine learning expertise with robust software engineering to solve complex problems through scientific rigor and creative innovation.

Education

University of Milan, Milan-Bicocca and Pavia

MASTER'S DEGREE IN ARTIFICIAL INTELLIGENCE FOR SCIENCE AND TECHNOLOGY

Milan/Pavia, Italy

September 2025 - Present

University of Milan

BACHELOR'S DEGREE IN PHYSICS, GRADE: 100/110

Ray tracing and Monte Carlo methods for uncertainty quantification in the pointing direction of radio telescopes for CMB observations.

Milan, Italy

September 2021 - July 2025

I.I.S. Severi-Correnti

SCIENTIFIC DIPLOMA, GRADE: 100/100

Milan, Italy

September 2016 - June 2021

EF International Language School

FULL-IMMERSION INTENSIVE ENGLISH LANGUAGE COURSE

Brighton, England

June - September 2019

Experiences

Private Tutoring in Mathematics and Physics

IN-HOME TUTORING

- Continuous support for 20+ students
- High school graduation exam preparation and remedial tutoring
- Personalized teaching methodologies tailored to student needs
- Progress monitoring and periodic reports to families

Milan, Italy

2020 - Present

Barista

DON SALVATORE - PIZZAIUOLO E OSTE

Milan, Italy

September - October 2024

Waiter

BAR TERRAZZA CLÉR

Milan, Italy

May - July 2022

Scout Leader

REPARTO BREITHORN, GRUPPO MILAN 8, AGESCI

- Design and leadership of educational and recreational activities for youth aged 12-16
- Organization of winter/summer camps and educational outings throughout the year
- Coordination with other educators and families

Milan, Italy

2021-2022

Projects

Money Ball AI

DESIGNER/DEVELOPER

- Creation and management of a database of NBA (National Basketball Association) games.
- Advanced statistical analysis and implementation of Machine Learning algorithms.

[🌐 lorenzoliuzzo/MBAI](https://lorenzoliuzzo.com)

September 2025 - Present

Telescope Pointing Simulation

DESIGNER/DEVELOPER

Implementation in *Julia* that allows modeling the reflective system of an optical telescope and studying the propagation of instrumental defects in mirrors to the pointing direction, combining geometric optics with *ray tracing* and *Monte Carlo* simulation techniques.

[🌐 lorenzoliuzzo/thesis-L30](https://lorenzoliuzzo.com)

June - July 2025

Ray Tracing Engine

CO-DESIGNER/DEVELOPER

- Pair project for the course *Numerical Techniques for Photorealistic Image Generation* at UNIMI.
- Objectives achieved:
 - translating a physical model into numerical code
 - writing well-structured, tested, and documented code
 - rapid learning of a new language (*Nim*)

 [lorenzoliuzzo/PhotoNim](#)

March - July 2024

Dimensional Analysis Library

DESIGNER/DEVELOPER

“CTDA: Compile Time Dimensional Analysis”, implementation in C++ of numeric types supporting units of measurement.

 [lorenzoliuzzo/ctda-cpp](#)

September - October 2023

Skills

Languages	Italian, English C1
Programming Languages	C++, Python, Julia, C, Nim
Markup Languages	LaTeX, Typst, Markdown, HTML
Development Tools	Git, GitHub, Jupyter
Machine Learning & Data Science	Scikit-learn, PyTorch, Pandas, NumPy, SciPy

Personal Interests

Hiking & Camping	Walking in the mountains and experiencing the essentiality of nature
Volunteering	Scout camps, Elderly assistance, Music therapy for children with disabilities
Sports	Swimming, Water polo, SlackLine, Climbing
Travel	Any destination and mode: on foot, by bike, by train, by car, by plane