Nicolò Massari | Resume

A hitchicker of the cosmos

Links
massarin.org
github | linkedin

Contact
nicolo.massari@lam.fr
Marseille, France

Experience

Research Software Engineer - Global Health Engineering, ETH Zürich — Mar. 2025 - Nov. 2025

* Worked to promote open and FAIR science development for research and data publishing
* Developed audio transcription and speaker diarisation software for and a tool to make data publication easier
* Skills: Python, CI/CD, Git | ghe_transcribe
* Skills: R, Git | fairenough

Simulations Software Engineer - ARIS - Nautilus Project — Oct. 2024 - Nov. 2025

* Built an autonomous underwater vehicle for exploration of Saturn's icy moons
* Contributed to simulations (dave), controls and CI/CD development
* Skills: Python, ROS 2, Gazebo, Git

University Teaching Assistant - ETH Zürich — Sep. 2023 - Jan. 2025

* Conducted weekly university classes to 30+ students of Analysis I and II

Tour Guide - Detours Zürich — Aug. 2024 - Oct. 2024

* Developed public speaking and time management skills

Design Thinking Coach - PBLabs, ETH Zürich — Aug. 2023 - Oct. 2023

* Applied Design Thinking methodologies to problem-solving workshops

Education

PhD Disentangling galaxy mass with gravitational lensing - Marseille, France — Dec. 2025 - Dec. 2028

* Thesis: Using strong and weak gravitational lensing data from Euclid to probe galaxy mass profiles with a Bayesian hierarchical model approach, in order to test dark matter candidates beyond ΛCDM
* Skills: Python, Git

MSc Computational Cosmology and Astrophysics - Zurich, Switzerland — Sep. 2022 - Jun. 2024

* Thesis: Developed a field level auto differentiable tool for weak lensing using physics informed Gaussian Processes (cosmogp). With it I found my fiducial cosmology within 1σ confidence with a Markov chain Monte Carlo estimation.
* Project: Simulated k-essence models of dark energy with different small sound speeds with the gevelution code
* Skills: Python, Slurm, Git

BSc Physics - Bristol, UK — Sep. 2021 - Jun. 2022

* Erasmus+ grant for an exchange year in Bristol

BSc Physics - Bologna, Italy — Sep. 2019 - Jun. 2022

* Project: Developed a simulation of infectious disease spread on a grid following the SIR model
* Skills: C++, Bash, Git | board_game

Languages
Italian C2 | English C1 | German A2

Skills
Python | C++ | CI/CD | Git | Bash | ROS 2 | Gazebo