

Nicolò Massari | Resume

A hitchicker of the cosmos

Links

massarin.org
[github](https://github.com/nicolomassari) | [linkedin](https://www.linkedin.com/in/nicolomassari/)

Contact

nicolo.massari@lam.fr
Marseille, France

Experience

 GHE	Research Software Engineer - Global Health Engineering, ETH Zürich	Mar. 2025 - Nov. 2025
* Open and FAIR science development for research data publishing		
* Developed audio transcription and speaker diarisation software for ETH's cluster		
* Skills: Python, CI/CD, Git ghe_transcribe		
* Skills: R, Git fairenough		
 aris	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, controls and CI/CD development		
* Skills: Python, ROS 2, Gazebo, Git dave		
 ETH	University Teaching Assistant - ETH Zürich	Sep. 2023 - Jan. 2025
* Conducted weekly university classes to 30+ students of Analysis I and II		
 Ü	Tour Guide - Detours Zürich	Aug. 2024 - Oct. 2024
* Developed public speaking and time management skills		
 ETH PBLabs	Design Thinking Coach - PBLabs, ETH Zürich	Aug. 2023 - Oct. 2023
* Applied Design Thinking methodologies to problem-solving workshops		

Education

 LAM	PhD Disentangling galaxy mass with gravitational lensing - Marseille, France	Dec. 2025 - Dec. 2028
* Thesis: Using strong and weak gravitational lensing data from Euclid to map the distribution of dark matter and baryonic matter in galaxies. Developing Bayesian hierarchical models to constrain the stellar-to-halo mass relation.		
* Skills: Python, Git		
 ETH	MSc Computational Cosmology and Astrophysics - Zurich, Switzerland	Sep. 2022 - Jun. 2024
* Thesis: Implemented a novel 2D inference tool using physics informed Gaussian Processes and Monte Carlo Markov Chain. Developing a field level inference auto differentiable pipeline in JAX.		
* Project: Simulated k-essence models of dark energy with different small sound speeds with the gevelution code		
* Skills: Python, Slurm, Git, cosmogg		
 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