

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

- * 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 | [faireenough](#)



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](#)



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 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



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, | [cosmogp](#)



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