

Niccolò Zanolli

MSc STUDENT IN AI · CLIMATE SCIENCE

Bologna, Italy

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On a journey to enhance climate models with AI.

Education

Alma Mater Studiorum - University of Bologna

MSC IN ARTIFICIAL INTELLIGENCE

Bologna, Italy

Dec. 2023 - PRESENT

- Main Topics: Foundations of AI, Machine Learning, Data Mining, Deep Learning, Computer Vision, Natural Language Processing.
- Additional Courses: Climate System modeling, Data Assimilation for Dynamical Systems.

Alma Mater Studiorum - University of Bologna

BSc IN PHYSICS (CUM LAUDE)

Bologna, Italy

Sep. 2020 - Dec. 2023

- Received a Scholarship given to high-performing STEM students during my first year.

Scientific Lyceum

SCIENTIFIC HIGH SCHOOL DIPLOMA (100/100)

Forlì, Italy

Sep. 2015 - Jun. 2020

Skills

Programming	Python (intermediate), C++ (intermediate), LaTeX, CMake
Back-end	Django, REST API
Frameworks	pandas, polars, xarray, pytorch, scikit-learn
OS/ VC	Linux, MacOS, git, GitHub
DevOps	AWS, Docker
Languages	Italian (native), English (C1)

Experience

Institute of Computing for Climate Science (ICCS)

Prospective VISITING STUDENT

Cambridge, UK

Feb.-May 2025

- Will be working alongside the ICCS team in the development of online learning in FTorch open source library.

SASIP - The Scale Aware Sea Ice Project

GRADUATE STUDENT RESEARCHER

International

Apr. 2023 - PRESENT

- Research at the intersection of Data Assimilation and Machine Learning to improve sea ice component of climate models as a Team member of Working Package 4.

Fondazione Mondo Digitale

INSTRUCTOR (CONTRACT)

Bologna, Italy

Jul. 2024-PRESENT

- Ital.IA Lab Microsoft-funded project: Gave 4 talks with hands-on session (6hrs) on what is AI and how to use generative AI to aid youngsters (especially NEETs) in their job seeking effort (July, November 2024).

Maths/Physics Tutoring

PRIVATE TUTOR

Forlì, Italy/ Remote

Sep. 2021 - PRESENT

- Giving Mathematics and Physics private lessons to students at the High School and Undergraduate-level.

Extracurricular Activity

Institute of Computing for Climate Science Summer School

PARTICIPANT

Cambridge, UK

10th-12th Jul. 2024

- Funded by Schmidt Sciences to participate to the Annual Summer School held by the ICCS of Cambridge University.
- Main topics: Machine learning, deep learning, climate modeling, GPU parallelization.

SASIP Annual Meeting

POSTER SESSION

Bologna, Italy

4th-6th Jun. 2024

- Presented my BSc thesis work at the Group's Annual meeting.