

# Alessandro Azzani

Italian

22 February 2000

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• alessandroazzani

in Alessandro Azzani

#### **EDUCATION**

Sep 2022 - Jul 2024

### ETH Zürich

Zurich, Switzerland

Master of Science in Physics

<u>Current GPA:</u> 5.89/6

Semester Thesis: "Gluing Manifolds in the BV-BFV Formalism"

Sep 2019 - Jul 2022

## University of Bologna

Bologna, Italy

Bachelor of Science in Physics

Final grade: 110/110 cum laude

Thesis: "Spectral Methods in Geometric Deep Learning"

Sep 2014 - Jul 2019

## Liceo Scientifico "A. Tassoni"

Modena, Italy

Highschool Diploma

Final grade: 100/100 🖪

• Highschool with a focus on scientific subjects

#### **WORK EXPERIENCE**

2019 - 2023

#### **Private Tutor**

Modena, Italy / Online

• Tutoring highschool and undergraduate students on scientific subjects, e.g. mathematics, physics and chemistry

#### **PROJECTS**

Jan 2022 - Jul 2022

## Bachelor's Thesis

- Title: "Spectral Methods in Geometric Deep Learning"
- o Introduction to deep learning algorithms for graph-like data
- Discussion of main concepts of graph theory

Mar 2023 - Jul 2023

## Semester's Thesis

- Title: "Gluing Manifolds in the BV-BFV Formalism"
- Introduction to differential geometry and supergeometry
- Review of a relevant paper on the field and of its results

Feb 2020 - Jun 2020

#### SIR Simulation (C++)

- Team work for the course "Computer Programming in Physics"
- o Simulation of the spreading of infectious diseases in a population

### Feb 2023 - Dec 2023 Peppa Feed

- o Building a cat feeder, controlled through an app on the phone
- Screw 3D printed, controlled by a stepper motor and an Arduino

#### Jan 2022 - May 2022

## Neuronal Synchronization Simulation (C++) <>

- o Team work for "Introduction to Complex Systems' Physics"
- o Simulation of a neuronal network using Hopfield network model
- Simulate the synchronization of neurons in different graphs

#### Jun 2023

## Prisoner's Dilemma Simulation (Python) <>

- Team work for the course "Controversies in Game Theory"
- Simulate population playing different spatial cooperative games
- Study of the influence of probabilistic abstention

#### **LANGUAGES**

• Italian: Native

English: Fluent IELTS certificate: C1 
German: Basic ETH german course: A2

### **DIGITAL SKILLS**

Programming

Python, Julia, C++, LATEX

Software/Tools

Arduino, Git, ROOT-Cern, LabVIEW, Linux, Microsoft Office

#### **CONFERENCES**

25 - 28 Jul 2022

## School in Geometric Deep Learning Pescara, Italy

- o Intensive school focused on Geometric Deep Learning
- o Among the speakers were Prof. Michael Bronstein, Cristian Bodnar and Francesco Di Giovanni

#### **EXTRA ACTIVITIES**

Sep 2017 - Jul 2018

## Vecchi-Tonelli Conservatory

Modena, Italy

Higher Institute of Musical Studies

- Piano player in various bands and orchestras
- Started learning piano in 2008 with private lessons

## Sep 2018 - Dec 2018

## University-Hospital of Modena

Modena, Italy

Volunteering

- Supportive role for nurses
- Helped patients in everyday tasks

#### Sep 2012 - Oct 2019

## A.S. La Fratellanza 1874

Modena, Italy

Athletics

- Specialized in high jump and pole jump
- Competed for regional leading athletics club