Francesco Tomba

CONTACT

- ☎ ▬▬▬▬
- ✉ ▬▬▬▬▬▬▬▬▬
- 📍 ▬▬▬▬▬▬
  ▬▬▬▬▬

LANGUAGE

- Italian (Native)
- French (A2)
- English (B2)

SKILL

- **Programming languages:**
  Python, C/C++ (Fluent)
  Matlab, Fortran (Base)
- **Software packages & libraries:**
  PyTorch, MPI, OpenMP,
  Cuda (basic)
  Arduino DevTools
  MS Office Suite
- **Operating systems:**
  Linux based systems
  (GUI and Terminal)
  MS Windows

EDUCATION

Liceo Scientifico A. Einstein 2012-2017

Cervignano Del Friuli
Final grade: 100/100

Bachelor's Degree in Physics 2017-2020

University of Trieste
Thesis title: *Studies on particle identification at the ALICE experiment using machine learning techniques*
Final grade: 110/110 cum Laude

Master's Degree in Data Science and Scientific Computing 2020 - 2023

University of Trieste
Thesis title: *Density-based clustering application to substructures identification in cosmological simulations*
Final grade: 110/110 cum Laude

PhD in Applied Data Science and Artificial Intelligence 2023 - present

University of Trieste
Topic: *Unsupervised Learning, High Performance Computing*

PROFESSIONAL EXPERIENCE

Fall 2025
Tutor for the Unsupervised Learning course at the master's degree in Data Science and Artificial Intelligence
University of Trieste

Spring 2025
Tutor for the Introduction to Machine learning course at the bachelor in Artificial Intelligence and Data Analytics
University of Trieste

Fall 2024

Tutor for the Maths course at Farmacy bachelor degree

University of Trieste

October 2022 – June 2024 (part time)

High school Math and Physics teacher

Liceo Scientifico A. Einstein, Cervignano Del Friuli

Sept – Dec 2022

Intern at Istituto Nazionale di Astrofisica (INAF)

Feb 2022

Peer Mentoring programme at Expo Dubai

Participation as a peer mentor for high school students in the event *Soccer and Data Cup*, a data science competition on sports analytics.
Activity hosted by the Italian pavilion, remote collaboration.

2017 – now

Member of WAYouthAPS

Youth association in the field of innovative didactics and organization of challenge-based learning events (i.e. hackathons and debates), spin off of the Italian Ministry of Education founded in 2017 as a community. From 2019 WAYouth is an autonomous actor. Member of the board of directors of WAYouth in 2023.

OTHER EXPERIENCES

3/2025 – Production of a course on Artificial Intelligence and Generative models for the European Institute for Innovation and Sustainability (EIIS – Next Generation Institute): online course for Liceo Volta in Pavia (MI).

31/01–3/02/2025 NextGen AI summit (Milano) – Collaboration with Italian Ministry of Education: Summit on artificial intelligence organized by the Italian Ministry of Education, involvement as a trainer

13–15/12/2024 Guardare Oltre (Pesaro) – Developement of education event at Pesaro Capitale della Cultura 2024: Event organized by Wayouth APS and with funding from Wanda di Ferdinando foundation with over 150 students from the whole national territory

28/09/2024 – Trieste Next – AI in astrophysics, unveiling the mysteries of the universe: Speaker at the dissemination event Trieste Next

14/09/2024 – radio1 RADAR: Guest at the radio phonic transmission RADAR on science dissemination

19–22/07/2024 – Scuola Futura Estate (Pompei) – Collaboration with Italian Ministry of Education: Involvement as a Trainer

5-12/07/2024 – ML4ASTRO (Catania) – High Performance Unsupervised Machine Learning in cosmological simulations and satellite imaging: Presentation at the conference Machine Learning for Astrophysics @ University of Catania

11/2022 – Production of a course on data science for the European Institute for Innovation and Sustainability (EIIS – Next Generation Institute): Course for teachers in high school hosted on "Scuola Futura" platform.

2017-2019 Involvement as a volountary for WAYouth Community in education events organized by the Italian Ministry of Education in the framework of the PNSD (Piano Nazionale Scuola digitale) project : Siena Food Hack, Wine Tech Hack (Verona), Futura Trieste, Futura Assisi, Futura Caserta, Futura L'Aquila, Pyramis Lucca

28 January 2025

Francesco Tomba