

Pietro Caforio

PHD STUDENT · EXTREME MULTI-LABEL LEARNING & AI RESEARCH

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Education

University of Fribourg, eXascale Infolab

Fribourg, Switzerland

PH.D. IN COMPUTER SCIENCE

Sep. 2025 – Present

- Doctoral research on **Extreme Multi-Label Classification (XMLC)** and **taxonomy-aware learning**, supervised by Prof. Philippe Cudré-Mauroux and Julien Audiffren.

Politecnico di Milano

Milan, Italy

MSC IN COMPUTER SCIENCE AND ENGINEERING - ARTIFICIAL INTELLIGENCE

September 2022 - July 2025

- Final grade: 110/110
- AI - Study Plan involving Machine Learning, Deep Learning, Computer Vision, Game Theory, NoSQL and Streaming Data systems

Technical University of Munich

Munich, Germany

ERASMUS SEMESTER

April. 2024 - August. 2024

- Courses followed: Machine Learning for 3D Geometry, Parallel Programming, Natural Language Processing Seminar course, Security Engineering

Università degli studi di Siena

Siena, Italy

BSC IN COMPUTER SCIENCE AND ENGINEERING

September. 2019 - October. 2022

- Final grade: 110/110 with honors
- Named best graduate of the 2021-2022 academic year.

Projects

MSc thesis: Multimodal Deep Learning for Cancer Grading

[Github Repo](#)

PYTORCH, NUMPY, DEEPLARNING, PANDAS

- **Research project** @NECSTlab Politecnico di Milano for my MSc Thesis on multimodal learning over histopathology WSI and CT imaging data for cancer grading. (accepted paper at WACV 2026)

Deep Learning course's competition - Team project

[Github Repo](#)

PYTHON, TENSORFLOW, KERAS, PANDAS, NUMPY

- Secured **2nd place** in a Deep Learning competition (Artificial Neural Networks course) for binary image classification of vertical farm leaves. Achieved **90% accuracy** among 500 participants. Recognized in a [LinkedIn post](#) by Polimi AIRLab.

Shape Generation & Completion Through Point-Voxel Diffusion (Modified)

[Github Repo](#)

PYTHON, PYTORCH

- Course project for "Machine Learning for 3D Geometry" at TUM, modifying the original paper to: (1) enable shape completion from RGB images, (2) incorporate text-conditional generation, and (3) allow text-driven part editing. .

Extracurricular

Leonardo/NECSTCamp student

Milan, Italy

NECSTLAB

Sep. 2023 - Now

Multidisciplinary program powered by NECSTLab @ DEIB Politecnico di Milano, involving a research project for my Master's Thesis in multimodal Deep Learning for biomedical imaging and horizontal courses for soft skills (public speaking, creativity, stress-management, entrepreneurship, employability)

Hackathons

St.Gallen, Switzerland - Munich, Germany

STARHACK AND HACKATUM

March 2024 - November 2024

Secured **third place** at HackaTUM with a project about automatic scraping, aggregation, selection and generation of news articles. [Devpost article](#)

AI4Sustainability Summer School

Milan, Italy

SUMMERSCHOOL ORGANIZED BY EIT DIGITAL IN COLLABORATION WITH HUAWAI

Sep. 2024

Skills and Languages

Languages English: B2 Cambridge English First Certificate, Italian: Native

Skills PyTorch, TensorFlow, Python, C, C++, Java, Machine Learning, Deep Learning, Data Mining

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