Elisabetta Fedele

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EDUCATION

ETH Zürich   Sep. 2021 – present
Master in Computer Science   *Zürich, Switzerland*
- Major in **Machine Intelligence** and Minor in **Theoretical Computer Science**
- **Relevant Courses**: Advanced Machine Learning, Algorithmic Game Theory, Algorithms Lab, Computational Intelligence Lab, Computer Graphics, Computer Vision, Generative Visual Models, Graph Theory, Machine Perception, NLP, Randomized Algorithms and Probabilistic Methods

Politecnico di Milano   Sep. 2018 – Jun. 2021
Bachelor in Computer Systems Engineering   *Milan, Italy*
- **Final mark**: 110/110 cum laude
- **Awards**: Merit Based Scholarship 2020/2021, Best Freshmen Prize 2019, Scholarship for Sports Merit 2019

EXPERIENCE

Research Intern   Jul. 2023 – present
EPFL   *Lausanne, Switzerland*
- Summer internship in the group of Alessandro Chiesa working on the time-space tradeoff of sumcheck protocol. We have found a new algorithm which has lead to an asymptotic improvement of the protocol.

Teaching Assistant   Feb. 2023 – Jun. 2023
ETH Zürich   *Zürich, Switzerland*
- In charge of writing the lecture notes for the graduate level course of Machine Perception.

Teaching Assistant   Sep. 2020 – Jan. 2021
Politecnico di Milano   *Milan, Italy*
- Tutoring an undergraduate class of 250 students during the laboratory of *Fundamentals of Computer Science*.

RESEARCH

OpenMask3D: Open-Vocabulary 3D Instance Segmentation | *website*   Mar. 2023 – Jun. 2023
- Semester project on Open-Vocabulary 3D Scene Understanding. We leveraged the capabilities of CLIP to expand the task of 3D instance segmentation to an Open-Vocabulary setting.*

FABRIC: Personalizing Diffusion Models with Iterative Feedback | *website*   Mar. 2023 – Jun. 2023
- Project for the Generative Visual Model seminar. We modified the Attention block of the Latent Diffusion model UNets managing to integrate users' personal preferences in the process of image generation.

RELEVANT PROJECTS

Project in Sentiment Analysis | *Python*   Jun. 2022 – Jul. 2022
- Research Project on sentiment analysis of tweets to analyze performance of BERTweet, LSTM on Word2Vec embeddings and FastText. Finetuning BERTweet we achieved an accuracy of 92.04%.

Project in 3D Human Pose and Shape Estimation from RGB Images | *Python*   Apr. 2022 – Jun. 2022
- Project on 3D pose estimation, implementation of a modified version of PARE in PyTorch, with a HR-NetV32 backbone. Our final model achieved an error of 57.5 PA-MPJPE.

LANGUAGES

Italian (Native), **English** (Fluent - 8 IELTS), **French** (A2), **German** (A2)

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*under submission

Extracurricular activities

Sailing Jun. 2006 – Jul. 2019

Professional Optimist and 420 sailor *Cagliari/Mandello del Lario, Italy*

- Member of the **Italian Sailing Team** from 2012 to 2019
- Competed in 6 World Championships and in 4 European Championships

Sailing instructor May 2022 - Present

FIV (Italian Sailing Federation) Sailing Instructor Diploma - Level I *Dongo, Lake Como Italy*