Jacopo Dapueto

Email: ▮▮▮▮▮▮▮▮▮▮

Date of birth: ▮▮▮▮▮▮ **Nationality:** ▮▮

WORK EXPERIENCE

[02/2023 – Current]

University teaching assistant

Università degli studi di Genova - DIBRIS

City: Genova
Country: Italy
Assist the professor of the specific course, including preparation of lectures and laboratories and leading review and feedback sessions for the students.

Course: Computational Vision
Degree: LM-18 - 2nd level degree in Computer Science

[02/2023 – Current]

University teaching assistant

Università degli studi di Genova - DIBRIS

City: Genova
Country: Italy
Assist the professor of the specific course, including grading students' assignments and leading reviews and feedback during hands-on activities.

Course: Algoritimi e Strutture dati (Data structures & Algorithms)
Degree: L-31 - 1st level degree in Computer Science

[07/2021 – 12/2021]

ICT application developer

Esaote S.p.A   https://www.esaote.com/

City: Genova
Country: Italy
Name of unit or department: R&D and patents of ultrasound applications
Business or sector: Manufacturing

Main activities and responsibilities: Study and development of artificial intelligence algorithms with application to real data.
Acquired skills and achieved objectives: Skills acquired: physics and instrumentation of medical ultrasound imaging.
Objectives achieved: implementation of automatic classification machine learning systems on an ultrasound system.

Employed as: intern/trainee - undergraduate internship | Number of hours: 625

[09/2020 – 07/2021]

Tutoring

Università degli studi di Genova - DIBRIS

City: Genova
Country: Italy
Business or sector: Education

Main activities and responsibilities: Teaching assistant. Didactic-integrative, preparatory and remedial activities for students in the first year of the bachelor's degree in computer science (DIBRIS).

Employed as: a fixed-length contract (50 hours)

[01/11/2022 – Current]

Ph.D. in Computer Science

Università degli studi di Genova - DIBRIS

Address: Via Dodecaneso, 35, 16146, Genova, Italy
Supervisors: Francesca Odone & NIcoletta Noceti
Project: Image enhancement and denoising in the deep learning era
Nowadays, the process of restoring information from noisy images to obtain a clean image is a problem of paramount importance, especially in domains where acquisition and transmission are still challenging. Although deep learning is developing rapidly, it is not necessarily an effective way to solve the denoising problem because data and synthetic data do not describe the complexity of real noise. A direction could be to introduce expert knowledge in the model thanks to Disentangled representation learning in order to simulate real-life scenarios with non i.i.d. data.

[02/2022 – 11/2022]

Research Fellow

Università degli studi di Genova - DIBRIS

Address: Via Dodecaneso, 35, 16146, Genova, Italy
Thesis: Machine Learning methods for feature and object detection in challenging domains.
We refer to challenging domains those characterized by the scarcity of data and those whose properties are such that tools commonly used for computer vision problems turn out to be ineffective, especially deep learning methods.
I faced the problem of segmentation of mammography images and identification of marine species from underwater videos. Such data requires expert knowledge to be acquired and annotated, and these determine the scarsity. Moreover, the images are quite noisy posing further challenges to the tasks. The goal is to study and test tools for a better generalization of the models using so little data.
Active participation to several research activities within MaLGa lab, there included: group meetings, reading groups, topic groups. These activities allowed me to broaden my knowledge on computer vision and machine learning as well as improving my soft skills such as public speaking, scientific writing.

[2019 – 2021]

LM-18 - 2nd level degree in Computer Science: data science & engineering - artificial intelligence

Università degli studi di Genova - DIBRIS

Address: Via Dodecaneso, 35, 16146, Genova, Italy
Final grade: 110/110 cum laude
Thesis: Machine learning methods for standard scanplanes detection in medical images and videos
Field(s) of study: Computer vision
Thesis supervisor: Francesca Odone

[2016 – 2019]

L-31 - 1st level degree in Computer Science

Università degli studi di Genova - DIBRIS

Address: Via Dodecaneso, 35, 16146, Genova , Italy
Field(s) of study: Natural sciences, mathematics and statistics: *Physics*
Final grade: 110/110 cum laude

Thesis: CIRQ, UN FRAMEWORK OPEN SOURCE PER I COMPUTER QUANTISTICI SVILUPPATI DA GOOGLE

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING B2 READING B2 WRITING B2

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS
[2023]

Knowledge distillation for efficient standard scanplane detection of fetal ultrasound

Journal: Medical and Biological Engineering & Computing

Authors: Jacopo Dapueto, Luca Zini, Francesca Odone

OTHER ACTIVITES

Responsible for reading group seminars

Organizing the reading group of our research unit (Machine Learning for Vision) in the MaLGa lab.