



Jacopo Dapuetto

Nationality: **Date of birth:** 01/05/1997

✉ **Email address:**

CURRENT POSITION

Ph.D. in Computer Science (MIUR scholarship)

MaLGa - DIBRIS - Università degli studi di Genova [11/2022 - Current]

Address: Via Dodecaneso, 35, 16146, Genova, Italy

Supervisors: Francesca Odone & Nicoletta Noceti

Project: Learning Interpretable Visual Representations

The advances in deep learning models obtained high discrimination power at the cost of functioning as black-box models, lacking transparency and explanations for both their training process and predictions. Learning interpretable representations of data can help in tackling the explainability. For example, Disentangled Representation Learning (DRL) is acknowledged to provide a robust and interpretable generalization. The project revolves around learning representations exhibiting semantic meaning for real tasks.

EDUCATION AND TRAINING

Research Fellow

MaLGa - DIBRIS - Università degli studi di Genova [02/2022 – 11/2022]

Address: Via Dodecaneso, 35, 16146 Genova (Italy) | **Thesis:** Machine Learning methods for feature and object detection in challenging domains.

In challenging domains, such as scarce data environments or those where traditional computer vision methods struggle, like mammography image segmentation or underwater species identification, deep learning techniques often fall short. These tasks demand expert annotation due to data scarcity and noisy images, posing significant challenges. The objective is to explore tools that improve model generalization despite limited data on the aforementioned tasks.

Active participation in several research activities within the MaLGa lab, including group meetings, reading groups, and topic groups. These activities allowed me to broaden my knowledge of computer vision and machine learning as well as improving my soft skills such as public speaking, and scientific writing.

Master (LM-18) degree in Computer Science: data science & engineering - artificial intelligence

DIBRIS - Università degli studi di Genova [2019 – 2021]

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

Thesis supervisor: Francesca Odone

Bachelor (L-31) - degree in Computer Science

DIBRIS - Università degli studi di Genova [2016 – 2019]

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

TEACHING

University teaching assistant

DIBRIS - Università degli studi di Genova [01/2024 - 09/2024]

Address: Via Dodecaneso, 35, 16146, Genova, Italy

Hours: 10

Course: Computational Vision

Master (LM-18) degree in Computer Science

University teaching assistant

DIBRIS - Università degli studi di Genova [09/2023 - 02/2024]

Address: [Via Dodecaneso, 35, 16146, Genova, Italy](#)

Hours: 10

Course: Introduzione Alla Programmazione (Introduction To Programming)

Bachelor (L-31) degree in Computer Science

University teaching assistant

DIBRIS - Università degli studi di Genova [02/2023 - 09/2023]

Address: [Via Dodecaneso, 35, 16146, Genova, Italy](#)

Hours: 30

Course: Algoritmi e Strutture dati (Data structures & Algorithms)

Bachelor (L-31) degree in Computer Science

University teaching assistant

DIBRIS - Università degli studi di Genova [02/2023 - 09/2023]

Address: [Via Dodecaneso, 35, 16146, Genova, Italy](#)

Hours: 10

Course: Computational Vision

Master (LM-18) degree in Computer Science

Tutoring

DIBRIS - Università degli studi di Genova [09/2020 - 07/2021]

Address: [Via Dodecaneso, 35, 16146, Genova, Italy](#)

Hours: 50

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).

INTERNSHIP

[07/2021 - 12/2021]

Esaote S.p.A

Hours: 625

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.

PHD SCHOOLS

[04/09/2023 – 08/09/2023]

VISMAL 23

Where: Università degli studi di Padova, Padova, Italy

Attended the International Summer School on Machine Vision (VISMAL) 2023

[19/06/2023 – 23/06/2023]

ModML 2023

Where: DIBRIS - Università degli studi di Genova, Genova, Italy

Attended the Topics in Modern Machine Learning (ModML) 2023

ORGANIZATION ACTIVITIES

Responsible for reading group seminars

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

MaLGA workshops

Involved in the organization of workshops on behalf of the MaLGA Center (Università degli studi di Genova)

Computer Science Workshop

Involved in the organization of the Computer Science Workshop within the Ph.D. program in Computer Science and System Engineering (Università degli studi di Genova)

PUBLICATIONS

Knowledge distillation for efficient standard scanplane detection of fetal ultrasound

Dapueto Jacopo, Zini L., & Odone F. Medical & Biological Engineering & Computing 62.1 (2024): 73-82

Transferring disentangled representations: bridging the gap between synthetic and real

Under review

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