

# Larbi Touijer

## Ph.D. Student in Computer Science

**Motivation** Application to Teaching Support

## Education

### Since Nov 2021, University of Genoa, Italy

- Ph.D. in Computer Science
- Supervision of Francesca Odone & Vito Paolo Pastore
- Theme: Semantic Segmentation applied to medical images

### 2018 - 2021, University of Genoa, Italy

- Master in Computer Science: Data Science & Engineering
- Supervision of Francesca Odone
- Subject: Automatic Food Nutrients Estimation. It started by gathering data about both the food recipes and the nutrients of the ingredients. An intermediate step was to explore voice recognition to apply text-to-speech from the recipe name to the nutritional values. Finally, we applied image classification to a fruit dataset, followed by a look-up in the nutrients dataset to predict the nutritional values.

### 2015 - 2017, Mohamed V University, Morocco

- Master in Computer Science
- Supervision of Mohamed El Hassouni
- Subject: Classification of textured images using convolutional neural network. It was a review of deep learning techniques for image classification, starting from MLP to CNN, with an application on textured images.

## Publications

- Vito Paolo Pastore, Larbi Touijer, Niccolò Capurro, Emanuele Cozzani, Giulia Gasparini, Aurora Parodi, and Francesca Odone, *Incorporating diagnostic prior with segmentation: a deep learning pipeline for the automatic classification of autoimmune bullous skin diseases*, ISBI 2023
- Larbi Touijer, Vito Paolo Pastore, and Francesca Odone, *Food image classification: the benefit of in-domain transfer learning*, ICIAP 2023 (under review)

## Teaching Assistant

### Mar 2023 - Jul 2023, Computational Vision

Preparing and conducting the Laboratories of Object Detection, Image Segmentation, and Pose Estimation.

### Oct 2022 - Feb 2023, Introduction to Programming,

Laboratories of C++

Larbi Touijer  
11/08/1994

Arabic: Mother Tongue  
French: B2  
English: C1  
Italian: B1

### About me:

My main research goal is deep learning applied to computer vision, with images being an important means of conveying information in several domains. Primarily in medical applications, automatizing several of the tasks performed by doctors will further advance medicine to new horizons. Besides, attending and participating in several reading groups at the level of our research unit has expanded my knowledge about computer vision, and has improved my skills in reading, analyzing, and presenting scientific papers.

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## **PhD Schools**

**12 - 20 July 2022, CVCC + DL Summer School, University of Genoa**  
Computer Vision Crash Course and Deep Learning: a Hands-on Introduction

**Jan/Feb 2022, MIVA Ph.D. Winter School, Italy**

Organized by UMI group MIVA, covering advanced mathematical models for imaging.

**29 Jun - 3 Jul 2020, RegML: Regularization Methods for Machine Learning, Genoa, Italy**

Advanced Machine Learning course, covering regularization methods to deal with high-dimensional data.

## **Other Activities**

**Organizing the Ph.D. Seminars, University of Genoa, Italy**

Weekly Seminars, where Ph.D. students from the DIBRIS department, conduct a 15min talk related to their research topic

**Responsible for the computational resources**

Managing the servers at the level of our research unit, Machine Learning for Vision (MLV)

**Responsible for the social media activities**

Communicating and sharing on social media, like Twitter and LinkedIn, the latest news and update at the level of our research unit MLV

**14-15 Nov 2019, C1A0 Hackathon, Genoa, Italy**

A 24h data science hackathon, with the task of predicting the energy consumption and cost at the city of Genoa. With a team of five students, we won the second prize