# Fabio Cermelli

### Ph.D. Student

I started the Ph.D. in Computer and Control Engineering in November 2019 at the Politecnico di Torino, in collaboration with the Italian Institute of Technology. My research focus on computer vision and deep learning, with a particular interest in incremental learning. My goal is to employ these technologies in agriculture to automate expensive and labour-intensive activities, to reduce costs and environmental impact. Besides my research activities, I am member and past president of the MuNu chapter of IEEE-HKN.

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### **EDUCATION**

### Ph.D. in Computer and Control Engineering Politecnico di Torino, Turin, Italy

11/2019 - present

The Ph.D. focus on reducing the cost of training semantic segmentation models. I am working under the supervision of prof. Barbara Caputo and in collaboration with the Italian Institute of Technology.

M.Sc. in Software Engineering - cum laude Politecnico di Torino, Turin, Italy

10/2016 - 11/2018

B.Sc. in Software Engineering - cum laude Politecnico di Torino, Turin, Italy

10/2013 - 7/2016

### **EXPERIENCE**

### Member of IEEE-HKN MuNu Chapter Politecnico di Torino, Turin, Italy

10/2016 - present

HKN is an honor society of IEEE which promote and recognise excellence in the electronic and computer engineering fields. Being president of the chapter (10/2017 - 9/2018) gave me the opportunity to improve my leadership skill and the ability to plan and organise the teamwork.

### Visiting Researcher

Fondazione Bruno Kessler, Trento, Italy

04/2019 - 06/2019

#### **Research Fellow**

Italian Institute of Technology, Turin, Italy

02/2019 - 06/2019

**Smart Spaces Application Developer** TIM (Telecom Italia), Turin, Italy

02/2019 - 06/2019

# **PROJECTS**

#### RAX

#### CLIK, Politecnico di Torino, Turin, Italy

09/2017 - 12/2017

RAX is a device designed for meeting rooms. It is a smart camera connected to a mechanical support that can be controlled trough Amazon Alexa voice commands. It was realised during the first CLIK hackathon and was presented at the Maker Faire Rome 2017 edition.

### T4T. Interface for Constructive Art DAUIN, Politecnico di Torino, Turin, Italy

8/2016 - 2/2017

We develop a new interface for 3D virtual objects manipulation for constructive art in augmented reality. This project was presented at the IEEE-3DUI Conference. To see more about the project visit youtu.be/CwncL4o5HGw.

## **LANGUAGES**

Italian

**Enalish** 



# LIST OF PUBLICATIONS

### Modeling the Background for Incremental Learning in Semantic Segmentation

F. Cermelli, M. Mancini, S. Rota Bulò, E. Ricci, B. Caputo.

2020 International Conference on Computer Vision and Patter Recognition (CVPR)

06-2020 (accepted, not yet published)

### The RGB-D Triathlon: Towards Agile Visual **Toolboxes for Robots**

F. Cermelli, M. Mancini, E. Ricci, B. Caputo, 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 11-2019

# **Discovering Latent Domains for Unsupervised Domain Adaptation Through** Consistency

M. Mancini, L. Porzi, F. Cermelli, B. Caputo 2019 International Conference on Image Analysis and Processing (ICIAP) 09-2019

### T4T: Tangible interface for tuning 3D object manipulation tools

A. Cannavo, F. Cermelli, V. Chiaramida, G. Ciccone, F. Lamberti, P. Montuschi, G. Paravati 2017 IEEE Symposium on 3D User Interfaces 03-2017