# RICCARDO CADEI

## **Mathematical Engineer**

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Lausanne, Switzerland

# 16 November 1998 (ITA)

### **EDUCATION**

### M.Sc. in Data Science

### École polytechnique fédérale de Lausanne

**Sept 2020 - June 2022** 

Lausanne. Switzerland

**Relevant courses:** Machine Learning, Applied Data Analysis, Artificial Neural Networks, Deep Learning, Systems for Data Science.

#### Research Projects:

- Detecting available rooftop area from satellite images to install photovoltaic panels using a U-Net (FCNN) based model. (at LESO-PB Lab, supervised by Professor Roberto Castello).
- Towards Multi Agent Causal Representation Learning (at Visual Intelligence for Transportation Lab, supervised by Ph.D. Yuejiang Liu).

#### Teaching Assistant:

Introduction to Machine Learning for Bioengineers (BIO-322)

## B.Sc. in Mathematical Engineer

### Politecnico di Milano

**Sept 2017 - July 2020** 

Milan, Italy

**Associations**: PoliMI Data Scientists, Associazione Ingegneri Matematici *Thesis*: Optimization models for the planning of activities in an Oncology Day-Hospital.

## **EXPERIENCE**

### Research Assistant

### Intelligent Global Health Lab - EPFL

**i** Jun 2021 - Sep 2021

Lausanne, Switzerland

Vote: 110/110

Devoloping a mobile app using Deep Learning for (non-invasive) upper body posture detection.

### Machine Learning Engineer

## L.O.L. Consultants

iii Dec 2020 - Feb 2021

[remote] Melbourne, Australia

Using DCNNs for segmentation of aerial images.

## **PROJECTS**



## **PUBLICATIONS**

### Conference Proceedings

 [accepted] Castello, R., Walch, A., Attias, R., Cadei, R., Jiang, S., & Scartezzini, J.-L. (2021). Quantification of the available area for rooftop photovoltaic installation from overhead imagery using convolutional neural networks., CISBAT.

## **AWARDS**

### Machine Learning

Generali Data Challenge

2021

Churn Classification Datahon: Best model and code out of 280 part.

#### **Oracle GraphML Contest**

2019

1st pl. in the Kaggle final challenge of GraphML course at Politecnico di Milano in partnership with Oracle Labs (Zurich).

### **ML4 Networking Contest**

2019

1st pl. in the Kaggle final challenge of ML4 Networking course at Politecnico di Milano.

### Mathematics

# International competition for mathematical and logical games 2018

5th national place (ITA), class L2.

**Grand Prix of Applied Mathematics** 

5th national pl. out of 7500+ stud. 2017 6th national pl. out of 7500+ stud. 2016

## CODING

ML: Python, R, DL: PyTorch, Tensorflow Math: MATLAB, Python, R, AMPL

Big Data: Spark , SQL , HDFS , AWS

Programming: Scala, C

App and Web: HTML , CSS , Andorid Studio

## **LANGUAGES**

Italian C2 (mother tongue)

English C1 French A1

### REFEREES

Prof. Roberto Castello

EPFL

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## OTHER INTERESTS

Marathon Runner for Atletica Paratico
 Marathon regional champion U23.
 2018

• Trainer of the athletic team of Politecnico di Milano (50+ athletes). 2018-2020

• Long distance hiker and cycle tourist.

Voluntage in Bucharost Caritas

 Volunteer in Bucharest, Caritas 2 weeks of child caring.

2018

• **Volunteer** in Ecuador, Operazione Mato Grosso 7 weeks of social services. 2012