

# RICCARDO CADEI

## Mathematical Engineer

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Lausanne, Switzerland

16 November 1998 (ITA)

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## 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

Vote: 110/110

#### 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

Jun 2021 – Sep 2021

Lausanne, Switzerland

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

### Machine Learning Engineer

#### L.O.L. Consultants

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 Dathon:  
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**.

- **Volunteer** in Bucharest, Caritas  
2 weeks of child caring. 2018
- **Volunteer** in Ecuador, Operazione Mato Grosso  
7 weeks of social services. 2012