

# RICCARDO CADEI

## Mathematical Engineer

Private information: @ riccardo.cadei@epfl.ch

+39 3391232740

Lausanne, Switzerland

16 November 1998 (ITA)

Websites: www.riccardocadei.com/

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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.

### 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. AMPL

## EXPERIENCE

### Research Assistant

#### Machine Learning and Optimization Lab - EPFL

Jun 2021 – Sep 2021

Lausanne, Switzerland

Developing an app for posture detection.

### Machine Learning Engineer

#### L.O.L. Consultants

Dec 2020 – Feb 2021

[remote] Melbourne, Australia

Using DCNNs for segmentation of aerial images. PyTorch AWS

## MAIN PROJECTS

### Rooftop (D)CNN Detection [🔗]

#### LESO-PB Lab at EPFL

Detecting available rooftop area for installing photo-voltaic panels in Switzerland using U-Net architecture (DCNN). PyTorch

### Graph Machine Learning Contest [🔗]

#### Oracle Labs, Politecnico di Milano

Multi-label vertex classification on a protein-protein interaction network generating a powerful embedding of its graph. Python

## 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

🧑 = alone, 🧑 = in team

## CODING

Python Matlab R SQL Spark Scala  
AMPL C RobotC LaTeX Android Studio

Git Jupyter Notebook AWS

## LANGUAGES

Italian C2 (mother tongue)  
English C1  
French A1

## REFEREES

Prof. Roberto Castello

EPFL

@ roberto.castello@epfl.ch

## 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