# RICCARDO CADEI

### **Machine Learning Researcher**

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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

Relevant courses: Machine Learning, Applied Data Analysis, Artificial Neural Networks, Deep Learning, Systems for Data Science, Visual Intelligence. Extra: Attending 'Mediterranean Machine Learning Summer School 2020' organized by DeepMind.

# 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 (San Martino Hospital in Genoa).

# **Experience**

## École polytechnique fédérale de Lausanne

Nov 2020 - present

Lausanne, Switzerland

Research Assistant at VITA Lab
 Investigating the limits of Statistical Learning in Motion Forecasting, introducing a Causal formalism and proposing a Robust and Adaptable modular architecture from a Causal Representation prospective. [1], [\*]

• Teaching Assistant in Introduction to Machine Learning for Bioengineers (BIO-322)

Summer Intern at MLO>iGH Lab
 Developing a mobile app for (non-invasive) upper body posture detection using Deep Learning (supervised by Professor Martin Jaggi).

Research Assistant at LESO-PB Lab
 Detecting available rooftop area to install photovoltaic panels from satellite images training a U-Net (FCNN) based model. [2]

#### L.O.L. Consultants

Dec 2020 - Feb 2021

[remote] Melbourne, Australia

Machine Learning Engineer
 Detecting available rooftop area to install photovoltaic panels from high quality satellite images using Deep Learning.

## **Publications**

[\*] One submission to CVPR 2022

- [1] Liu Yuejiang, Cadei Riccardo, and Alexandre, Alahi. "Towards Robust and Adaptable Motion Forecasting: A Causal Representation Perspective". In: Workshop in Distribution Shifts at NeurIPS (2021).
- [2] Roberto Castello, Alina Walch, Raphael Attias, Riccardo Cadei, Shasha Jiang, and Jean-Louis Scartezzini. "Quantification of the available area for rooftop photovoltaic installation from overhead imagery using Convolutional Neural Networks." In: Special Issue of **Journal of Physics**: Conference Series, 2021.

## **Awards**

#### Machine Learning

### Generali Data Challenge 2021

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

#### Oracle GraphML Contest

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

## ML4 Networking Contest 20

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** 

# **Projects**

For a structured summary of my projects visit my Personal Portfolio clicking [here] or scanning the QR Code on the right.



2019

# Coding

Machine Learning: Python , R , Julia

Deep Learning: 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, English: C1, French: A1

## Referees

### Professor Alexandre Alahi

EPFL

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## **Other Interests**

Marathon Runner for Atletica Paratico
 Marathon regional champion U23.

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

• Long distance hiker and cycle tourist.