RICCARDO CADEI

Machine Learning Researcher

Education

M.Sc. in Data Science

École polytechnique fédérale de Lausanne

Sept 2020 - Aug 2022

Lausanne, Switzerland

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

iii 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 203

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 , Android Studio

Languages

Italian: C2, English: C1, French: A1

Referees

Professor Alexandre Alahi

EPFL

@ alexandre.alahi@epfl.ch

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.