RICCARDO CADEI

Machine Learning Researcher

Private information: @ riccardo.cadei@epfl.ch +1 (617) 201-5864 Cambridge (MA), USA 16 November 1998 (ITA)
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Education

M.Sc. in Data Science

École polytechnique fédérale de Lausanne

Sept 2020 – Feb 2023 Lausanne, Switzerland

Master's Thesis: Visiting graduate student at **Harvard University**
Conferences: CISBAT 2021, NeurIPS 2021, CVPR 2022
Summer Schools: M2L 2020, M2L 2022, Neurosymbolic Programming

B.Sc. in Mathematical Engineering Vote: 110/110

Politecnico di Milano

Sept 2017 – July 2020 Milan, Italy

Associations: PoliMi Data Scientists, Associazione Ingegneri Matematici

Experience

Schlumberger Doll Research

Feb 2022 – present Cambridge (MA), USA

- **Machine Learning Researcher**
  Developing new methods and applications of deep learning for causal modeling and interpretation of subsurface data.

École polytechnique fédérale de Lausanne

Nov 2020 – Feb 2022 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 Adaptive modular architecture from a Causal Representation prospective. [1], [2]
- **Teaching Assistant**
  in Introduction to Machine Learning for Bioengineers (BIO-322)
- **Research Assistant at MLO>iGH Lab (*Summer Intern*)**
  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. [3]

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

[1] Yuejiang Liu, Riccardo Cadei, Jonas Schweizer, Sherwin Bahmani, and Alexandre, Alahi. "Towards Robust and Adaptive Motion Forecasting: A Causal Representation Perspective". In: ***IEEE/CVF*** *International Conference on Computer Vision and Pattern Recognition* (2022).

[2] Yuejiang Liu, Riccardo Cadei, and Alexandre Alahi. "Towards Robust and Adaptive Motion Forecasting: A Causal Representation Perspective". In: ***NeurIPS*** *2021 Workshop on Distribution Shifts: Connecting Methods and Applications*.

[3] Roberto Castello, Alina Walch, Raphaël Attias, Riccardo Cadei, Shasha Jiang, and Jean-Louis Scartezzini. "Quantification of the suitable rooftop area for solar panel installation from overhead imagery using Convolutional Neural Networks". In: ***Journal of Physics****: Conference Series*. Vol. 2042. 1. IOP Publishing. 2021, p. 012002.

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**

Projects

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

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. 2018
- **Trainer** of the athletic team of Politecnico di Milano (50+ athletes). 2018-2020
- Long distance **hiker** and **cycle tourist**.