



Ivan Marisca

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LANGUAGES

Italian (Native)

English (Professional)

French (Basic)

Spanish (Basic)

About Me

I am a Ph.D. student at the **Graph Machine Learning Group**, within the Swiss AI lab **IDSIA**, at Università della Svizzera italiana (**USI**), under the supervision of Prof. **Cesare Alippi**. My research focuses on problems regarding **irregular spatiotemporal data**, like prediction, imputation, and control on sensor networks using **geometric deep learning**.

I obtained BSc (2017) and MSc (2020) degrees in Computer Science and Engineering at **Politecnico di Milano**. My master thesis project has been supervised by Prof. **Nicola Gatti**.

Education

Ph.D. Student in Informatics 2020 — ongoing
Università della Svizzera italiana

Currently, I am a Ph.D. Student at the Swiss AI Lab IDSIA at USI Università della Svizzera Italiana, under the supervision of prof. Cesare Alippi.

MSc in Computer Science and Engineering 2017 — 2020
Politecnico di Milano

Master's degree with honors (110/110L), defending a thesis on machine learning. During the two years of studies, I mostly attended AI-oriented courses.

Erasmus Sep 2018 — Jan 2019
Universitat Politècnica de València

During the semester spent abroad (in Valencia) within the Erasmus program, I attended Spanish and English courses on programming, robotics and artificial intelligence.

BSc in Engineering of Computing Systems 2014 — 2017
Politecnico di Milano

The course program covered general topics of engineering and computer science.

High School in Mathematics 2009 — 2014
Liceo C. Caminiti

High school diploma with a specific focus in mathematics and science at *Liceo Scientifico Caminiti* in Santa Teresa di Riva (Sicily).

Academic Activities

Teaching

- **Advanced Topics in Machine Learning**, MSc at USI Sep 2022 — Jan 2023
Students tutoring for projects on reproducibility.
- **Graph Deep Learning**, MSc at USI Feb 2022 — Jun 2022
I gave a lecture on Spatiotemporal Graph Neural Networks and tutored students on projects.
- **Machine Learning**, BSc at USI Feb 2021 — Jun 2021
Lab sessions on practical aspects and show how to design machine learning solutions to real-world problems.

Supervised students

- **Marco Latella**, MSc at USI 2022
Graph Representation Learning for Multi-site Photovoltaic Energy Production

Talks

- **Spotlight presentation** at TGL Workshop 2022
The **Temporal Graph Learning Workshop** at NeurIPS 2022 (New Orleans).
- **Poster presentation** at NeurIPS 2022
The 36th Conference on Neural Information Processing Systems (New Orleans).
- **Invited talk** at Baker Hughes 2022
Invited to give a webinar on time series imputation (Virtual).
- **Poster presentation** at ICLR 2022
The 10th International Conference on Learning Representations (Virtual).


- **Abstract presentation** at MLDM 2021
The 10th Italian Workshop on Machine Learning and Data Mining (Virtual).

Awards & Scholarships



- **Best Paper Award** — **Temporal Graph Learning Workshop** @ NeurIPS 2022
For the paper "Scalable Spatiotemporal Graph Neural Networks".
- **Travel Award** — NeurIPS 2022
Travel award to attend the NeurIPS conference in New Orleans (US).
- **Scholarship** — SAPAR 2019
Scholarship awarded to the 4 best STEM students.
- **Scholarship** — Politecnico di Milano 2019
Reduced tuition for high merits.

Projects

I believe in worldwide accessibility of science. As such, I make the software I develop for my research publicly available (whenever possible) through [my GitHub page](#). You can also find the code related to my publications on the [GitHub page of Graph Machine Learning Group](#).

**Torch Spatiotemporal**

Torch Spatiotemporal (**TSL**) is a library built upon **PyTorch** and **PyG** for neural spatiotemporal data processing, with a focus on Graph Neural Networks.

 [GitHub](#)  [Documentation](#)

Other projects

- **GraPV** Sep 2020 — ongoing
Developing of graph-based methods for multi-site photovoltaic power forecasting, to improve production accuracy prediction. Funded by **Innosuisse**.

Publications

Scalable Spatiotemporal Graph Neural Networks
Andrea Cini^{}, **Ivan Marisca^{*}**, Filippo Maria Bianchi, Cesare Alippi*
AAAI 2023

Learning to Reconstruct Missing Data from Spatiotemporal Graphs with Sparse Observations
***Ivan Marisca^{*}**, Andrea Cini^{*}, Cesare Alippi*
NeurIPS 2022

Filling the G_ap_s: Multivariate Time Series Imputation by Graph Neural Networks
Andrea Cini^{}, **Ivan Marisca^{*}**, Cesare Alippi*
ICLR 2022

^{*}Equal contribution.