

Luca Butera

PhD Student in Informatics

Faculty of Informatics, Università della Svizzera italiana (USI), Lugano, Switzerland
IDSIA (USI-SUPSI) · Istituto Dalle Molle di Studi sull'Intelligenza Artificiale

CONTACT & SOCIAL

- luca.butera@usi.ch
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- lucabutera.com
- Lugano, Switzerland · Milan, Italy
- Google Scholar
- github.com/LucaButera
- x.com / Twitter

LANGUAGES

Italian (Native)

English (Fluent)

TECHNICAL STACK

DEEP LEARNING
Python · PyTorch · PyTorch Geometric · NumPy · SciPy

SCIENTIFIC COMPUTING
Linux / Bash · Git · GPU Compute · LaTeX

EXPERIENCE

2022–present — PhD Researcher & Teaching Assistant
Università della Svizzera Italiana (USI) / IDSIA · Lugano, Switzerland
- Focusing on deep learning for time series forecasting and spatiotemporal data.
- Initially explored deep learning for applications in precision agriculture.

2026–2026 — Visiting PhD Student
University of Oxford · Oxford, United Kingdom
- 6-month visiting research stay at Machine Learning Research Group (MLRG), hosted by Prof. Xiaowen Dong.

2020–2022 — Research Assistant
Università della Svizzera Italiana (USI) / IDSIA · Lugano, Switzerland
- Developed deep learning algorithms for automatic pest insect monitoring.

2018–2020 — Data Scientist & Software Engineer
Bottega 52 · Milan, Italy
- Worked as backend software engineer for data-streaming application and as data scientist for applications in recommendation systems.

EDUCATION

2022–present — PhD in Informatics
Università della Svizzera italiana (USI) · Lugano, Switzerland
Advisor: Prof. Cesare Alippi. GMLG Research Group at IDSIA. Focusing on deep learning for time series forecasting and spatiotemporal data.

2016–2019 — Master's Degree in Computer Science and Engineering
Politecnico di Milano · Milan, Italy
Focused on machine learning, artificial intelligence, and software engineering.

2016–2013 — Bachelor's Degree in Computer Science
Politecnico di Milano · Milan, Italy
Core computer science, algorithms, software engineering, and mathematical foundations.

TEACHING & MENTORSHIP

Thesis Mentorship
Co-Advisor · Università della Svizzera italiana (USI) (2022–present)
Co-supervised several Master, Bachelor, and High School students on graduation thesis projects in deep learning.

Edge Computing in the IoT
Teaching Assistant · Università della Svizzera italiana (USI) (2024–present)

Machine Learning
Teaching Assistant · Università della Svizzera italiana (USI) (2023–2023)

ACADEMIC SERVICE

Peer Reviewer
NeurIPS, ICML, ICLR, AISTATS, TMLR, TNNLS (2024–present)

AWARDS & PRESENTATIONS

Doctoral Mobility Grant (2026)
Università della Svizzera italiana (USI)
University grant funding a 6-month research visit to the University of Oxford.

Expert Reviewer (2025-2026)
Transactions on Machine Learning Research (TMLR)
Award granted to distinguished peer reviewers by TMLR.

Gold Reviewer (2026)
International Conference of Machine Learning (ICML)
Award granted to the top reviewers by ICML.

TMLR Journal-to-Conference Track for LoG (2024)
Learning on Graphs Conference (LoG)
Poster presentation of research published in Transactions on Machine Learning Research (TMLR) at the LoG Conference.

SELECTED PUBLICATIONS

1. **Luca Butera**, Giovanni De Felice, Andrea Cini, Cesare Alippi. **"Why Do Time Series Models Need Long Context Windows?"**. *The Fortieth Annual Conference on Neural Information Processing Systems*, **2026**.
2. **Luca Butera**, Giovanni De Felice, Andrea Cini, Cesare Alippi. **"On the Regularization of Learnable Embeddings for Time Series Forecasting"**. *Transactions on Machine Learning Research*, **2025**.
3. Miguel Nogales, **Luca Butera**, Alberto Ferrante, Cesare Alippi. **"Context Saturation in Zero-Shot Time-Series Foundation Models"**. *ICML 2026 Workshop on Combining Theory and Benchmarks: Towards A Virtuous Cycle to Understand and Guarantee Foundation Model Performance*, **2026**.

** Complete publications and preprints list available at **https://lucabutera.com/publications***