

Irene Cannistraci

PH.D. STUDENT IN COMPUTER SCIENCE

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Education

Sapienza University of Rome

PH.D. IN COMPUTER SCIENCE

- GLADIA Research Group, Prof. Emanuele Rodolà

Rome, Italy

2021 - present

Sapienza University of Rome

M.S. IN COMPUTER SCIENCE - GRADUATED WITH 110/110 CUM LAUDE

- Thesis: Time-Aware Sequential Deep Learning and Their Application in Healthcare

Rome, Italy

2019 - 2020

Sapienza University of Rome

B.S. IN COMPUTER SCIENCE

Rome, Italy

2014 - 2017

Experience

Teaching Assistant - Data Science in Action

LUISS GUIDO CARLI UNIVERSITY - DEPARTMENT OF BUSINESS AND MANAGEMENT

- Lecturer and mentor for the Data Science in Action course

Rome, Italy

Sept 2023 - present

Teaching Assistant - Deep Learning and Applied AI

SAPIENZA UNIVERSITY OF ROME - DEPARTMENT OF COMPUTER SCIENCE

- Lecturer and mentor for the Deep Learning and Applied AI course

Rome, Italy

Feb 2023 - Jun 2023

Tutor

UNITELMA SAPIENZA - COMPUTER SCIENCE DEPARTMENT

- Help students learn more about the university and provide an interface between them and the professors.

Rome, Italy

Nov 2021 - present

Coding Teacher

FONDAZIONE MONDO DIGITALE

- Online coding lessons for high-school students for CO.ME.SE (COde&FraME for Self Empowerment) and CodinGirls Projects.
- Role Model for "La Notte dei Ricercatori 2020" and "STEM#4TeenGirls" the Erasmus+ Project for Scuole CEFA in Rome, Bilbao and Prague

Rome, Italy

Nov 2020 - Dec 2021

Software Developer Engineer

NTT DATA

- RESTful APIs: Develop a microservices architecture to revise an outdated monolithic platform for messaging. Scalability and high reliability were guaranteed by the Openshift platform, meanwhile real-time tracking and quick troubleshooting by Elasticsearch.
- Developing different portals using the ServiceNow platform.

Rome, Italy

Jun 2017 - Feb 2019

Publications

Peer reviewed


- [Avo+23] D. Avola, **I. Cannistraci**, M. Cascio, L. Cinque, A. Diko, D. Distanto, G. L. Foresti, A. Mecca, and I. Scagnetto. "Real-Time GAN-Based Model for Underwater Image Enhancement". In: *International Conference on Image Analysis and Processing ICIAP 2023*. Springer. 2023, pp. 412–423.
- [Can+23c] **I. Cannistraci**, L. Moschella, V. Maiorca, M. Fumero, A. Norelli, and E. Rodolà. "Bootstrapping Parallel Anchors for Relative Representations". In: *The First Tiny Papers Track at ICLR 2023, Tiny Papers @ ICLR 2023, Kigali, Rwanda, May 5, 2023*. Ed. by K. Maughan, R. Liu, and T. F. Burns. OpenReview.net, 2023. URL: <https://openreview.net/pdf?id=VBuUL2IWlq>.
- [Cri+23] D. Crisostomi, **I. Cannistraci**, L. Moschella, P. Barbiero, M. Ciccone, P. Liò, and E. Rodolà. "From Charts to Atlas: Merging Latent Spaces into One". In: *NeurIPS 2023 Workshop on Symmetry and Geometry in Neural Representations (NeurReps @ NeurIPS 2023)* (2023). URL: <https://arxiv.org/abs/2311.06547>.
- [Avo+22] D. Avola, **I. Cannistraci**, M. Cascio, L. Cinque, A. Diko, A. Fagioli, G. L. Foresti, R. Lanzino, M. Mancini, A. Mecca, and D. Pannone. "A Novel GAN-Based Anomaly Detection and Localization Method for Aerial Video Surveillance at Low Altitude". In: *Remote Sensing* 14.16 (2022), p. 4110.

Preprints

- [Can+23a] **I. Cannistraci**, M. Fumero, L. Moschella, V. Maiorca, and E. Rodolà. "Infusing invariances in neural representations". In: *Extended Abstract, TAG-ML workshop @ ICML 2023* (2023). URL: <https://openreview.net/pdf?id=mCm4iiNoNc>.

- [Can+23b] **I. Cannistraci**, L. Moschella, M. Fumero, V. Maiorca, and E. Rodolà. "From Bricks to Bridges: Product of Invariances to Enhance Latent Space Communication". In: *arXiv preprint arXiv:2310.01211* (2023). URL: <https://arxiv.org/abs/2310.01211>.
- [Pra+23] M. Prata, G. Masi, L. Berti, V. Arrigoni, A. Coletta, **I. Cannistraci**, S. Vyetrenko, P. Velardi, and N. Bartolini. "LOB-Based Deep Learning Models for Stock Price Trend Prediction: A Benchmark Study". In: *arXiv preprint* (2023). URL: <https://arxiv.org/abs/2308.01915>.
- [Mar+22] M. Maranghi, A. Anagnostopoulos, **I. Cannistraci**, I. Chatzigiannakis, F. Croce, G. Di Teodoro, M. Gentile, G. Grani, M. Lenzerini, S. Leonardi, et al. "AI-based Data Preparation and Data Analytics in Healthcare: The Case of Diabetes". In: *arXiv preprint arXiv:2206.06182* (2022).

Awards

- Nov. 2022 **Avvio alla Ricerca - Sapienza University**, Research grant for young researchers and Ph.D. students. €1000
- Mar. 2022 **2021 Zonta International Women in Technology Scholarship** , Zonta International \$8000
- 2014-2017 **Lazio DiSCo - Sapienza University**, Scholarship for academic merits to fully cover the B.S. tuition fees.

Professional Activities

Reviewer (Workshops)

- Symmetry and Geometry in Neural Representations (NeurReps) @ NeurIPS - 2023
- Unifying Representations in Neural Models (UniReps) @ NeurIPS - 2023
- New in ML @ NeurIPS - 2023
- Women in Machine Learning Workshop (WiML) @ NeurIPS - 2023

Reviewer (Conferences)

- International Conference on Image Analysis and Processing (ICIAP) - 2023

Reviewer (Journals)

- ACM Transactions on Knowledge Discovery from Data (TKDD) - 2021

Talks

Unifying neural representations by infusing invariances

INVITED TALK AT THE TÜBINGEN AI CENTER

Tübingen, Germany

June 2023

Communicating between latent spaces with limited semantic correspondence

INVITED TALK AT THE ARTIFICIAL INTELLIGENCE TRENTO JOURNAL CLUB 

Trento, Italy

March 2023

Invited Talk at Sapienza School of Advanced Studies (SSAS)

COURSE OF INTRODUCTION TO PROGRAMMING WITH PYTHON (PROF. E. RODOLÀ)

Virtual

Feb 2022

Invited Panelist for WiDS Rome Event

WOMEN IN DATA SCIENCE ROME EVENT

Virtual

Jun 2021

Invited Talk for Data Science Innovation in Diabetes Webinar

REAL DATA ARE OFTEN DIRTY DATA: PROBLEMS WITH THE ANALYSIS OF LARGE COLLECTIONS OF ELECTRONIC HEALTH RECORDS

Virtual

Jun 2021

Attended

Challenges in building Billion Users Cloud Applications (BUCA) 

Scholarship Awardee


Sep 2023

Varenna, Italy

International Conference on Machine Learning (ICML 2023) 

Jul 2023


Honolulu, USA

Eastern European Machine Learning Summer School (EEML) 

Scholarship Awardee

Jul 2023

Košice, Slovakia

Machine Learning Summer School on Applications in Science (MLSSS) 

Admission upon selection

Jun 2023

Krakow, Poland

Mediterranean Machine Learning Summer School (M2L) 

Scholarship Awardee

Sep 2022

Milan, Italy

Synapse AI Symposium 

Scholarship Awardee

Jul 2022

Milan, Italy

Lightning DevCon 

Scholarship Awardee

Jun 2022

New York City, USA

ACM International Conference on AI in Finance (ICAIF) 

Scholarship Awardee

Nov 2021

Virtual