

# 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 - Telecom
  - Develop a microservices architecture to revise an outdated monolithic platform for messaging.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.
- Internal Portals (ServiceNow) - Enel
  - eProfile: employees use the service to create their profiles, insert their job-related information, and apply to open internal positions.
  - OneClick: employees adopt it to open issue tickets, request devices, software licenses, etc.
  - Global Travel: employees adopt it to insert travel requests.

Rome, Italy

Jun 2017 - Feb 2019

## 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

### Invited Talk at "il Futuro Annunciato"

ITALIAN WORKSHOP FOR BACHELOR STUDENTS

Rieti, Italy

July 2023

### Invited Talk at the Artificial Intelligence Trento Journal Club

COMMUNICATING BETWEEN LATENT SPACES WITH LIMITED SEMANTIC CORRESPONDENCE

Trento, Italy

March 2023

### Invited Talk at Sapienza School of Advanced Studies (SSAS)

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

Rome, Italy

Jan 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) 

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

## Publications

### Peer reviewed

- [Avo+23] D. Avola, **I. Cannistraci**, M. Cascio, L. Cinque, A. Diko, D. Distanti, 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*. 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>.
- [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 at 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).
- [Pra+23] M. Prata, G. Masi, L. Berti, V. Arrigoni, A. Coletta, **I. Cannistraci**, S. Vyetenko, 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).