Irene **Cannistraci**

PH.D. STUDENT IN COMPUTER SCIENCE

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Education

Sapienza University of Rome   *Rome, Italy*

PH.D. IN COMPUTER SCIENCE   *2021 - present*

- Supervisor: Prof. D. Avola (VisionLab)
- Co-Supervisor: Prof. E.Rodolà (GLADIA)

Sapienza University of Rome   *Rome, Italy*

M.S. IN COMPUTER SCIENCE - GRADUATED WITH 110/110 CUM LAUDE   *2019 - 2020*

- Thesis: Time-Aware Sequential Deep Learning and Their Application in Healthcare
- Supervisor: Prof. Paola Velardi

Sapienza University of Rome   *Rome, Italy*

B.S. IN COMPUTER SCIENCE   *2014 - 2017*

Work Experience

Fondazione Mondo Digitale   *Rome, Italy*

COACH   *Nov 2020 - Dec 2021*

- 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 inRome, Bilbao and Prague

NTT Data   *Rome, Italy*

SOFTWARE DEVELOPER ENGINEER   *Jun 2017 - Feb 2019*

- 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  - Develop a microservices architecture to revise an outdated monolithic platform for messaging.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.

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.

Talks

Invited Talk at Sapienza School of Advanced Studies (SSAS)   *Rome, Italy*

COURSE OF INTRODUCTION TO PROGRAMMING WITH PYTHON (PROF. E. RODOLÀ)   *Jan 2023*

Invited Talk at Sapienza School of Advanced Studies (SSAS)   *Virtual*

COURSE OF INTRODUCTION TO PROGRAMMING WITH PYTHON (PROF. E. RODOLÀ)   *Feb 2022*

Invited Panelist for WiDS Rome Event ⧉   *Virtual*

WOMEN IN DATA SCIENCE ROME EVENT   *Jun 2021*

Invited Talk for Data Science Innovation in Diabetes Webinar   *Virtual*

REAL DATA ARE OFTEN DIRTY DATA: PROBLEMS WITH THE ANALYSIS OF LARGE COLLECTIONS OF ELECTRONIC HEALTH RECORDS   *Jun 2021*

Scholarships for Conferences

Jul 2022 **Synapse AI Symposium** ⧉, Bending Spoons Scholarship   *Milan*

Jun 2022 **Lightning DevCon** ⧉, Lightning Scholarship   *New York City*

Nov 2021 **ICAIF'21** ⧉, JPMorgan Fellowship   *Virtual*

Oct 2021 **Festival Informatici Senza Frontiere** ⧉, Aused Fellowship   *Rovereto (TN)*

Professional Activities / Academic Service

Tutor
UNITELMA SAPIENZA - COMPUTER SCIENCE DEPARTMENT   *Nov 2021 - present*
- Help students learn more about the university and provide an interface between them and the professors.

Reviewer
ACM TRANSACTIONS ON KNOWLEDGE DISCOVERY FROM DATA (TKDD) - JOURNAL   *Oct 2021*

Collaboration with Sapienza Flight Team
SAPIENZA AEROSPACE STUDENT ASSOCIATION-AIAA STUDENT BRANCH   *Dec 2019*
- Developing a neural network for object detection and classification for the AUVSI SUAS 2020 Competition.

Projects Selection

A YouTube Player for Everyone   *Rome*
UNIVERSITY PROJECT   *A.Y. 2019/2020*
- A YouTube player designed and implemented to be accessible by deaf users, combining biometric and multimodal methodologies. Users can log in through a facial identification system, and an emotion recognition algorithm suggests playlists based on their mood. Then the user can interact with the player by using hand gestures and/or voice commands.

BAS2Net   *Rome*
UNIVERSITY PROJECT   *A.Y. 2019/2020*
- Developing a new model that combines two state-of-the-art works in the Salient Object Detection field (BasNet and Res2Net). The resulting model requires 40% less training time, leading to better results on several datasets. Moreover, the proposed neural network is half the size of the original one.

Cervical Cancer Biopsia Response Classification   *Rome*
UNIVERSITY PROJECT   *A.Y. 2019/2020*
- Development of several machine learning algorithms to detect cervical cancer based on the Biopsia response, using the Cervical cancer (Risk Factors) dataset.

Publications

Peer reviewed

[Avo+22]   D. Avola, **I. Cannistraci**, M. Cascio, L. Cinque, A. Diko, A. Fagioli, G. L. Foresti, R. Lanzino, M. Mancini, A. Mecca, et al. "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+23]   **I. Cannistraci**, L. Moschella, V. Maiorca, M. Fumero, A. Norelli, and E. Rodolà. "Bootstrapping Parallel Anchors for Relative Representations". In: *arXiv preprint arXiv:2303.00721* (2023).

[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).