

# Irene Cannistraci

PH.D. STUDENT IN COMPUTER SCIENCE

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## Education

### Sapienza University of Rome

PH.D. IN COMPUTER SCIENCE

- Supervisor: Prof. D. Avola (VisionLab)

Rome, Italy

Nov 2020 - 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
- Supervisor: Prof. Paola Velardi

Rome, Italy

Sept 2018 - Oct 2020

### Sapienza University of Rome

B.S. IN COMPUTER SCIENCE

Rome, Italy

Sept 2014 - Mar 2017

## Work Experience

### Fondazione Mondo Digitale

COACH

- 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

### NTT Data

SOFTWARE DEVELOPER ENGINEER

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  - Develop a microservices architecture to revise an outdated monolithic platform for messaging.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

## Talks

### 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

## 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 Informativi 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

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## 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

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## 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

- [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).