

# Simone Antonelli

Köln, Germany

🏠 [siantonelli.github.io/](https://siantonelli.github.io/) |  [siantonelli](#) |  [siantonelli](#) |  Simone Antonelli

## Education

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### CISPA Helmholtz Center for Information Security

Saarbrücken, Germany

Ph.D. in Computer Science

Nov 2022 - Current

- Conducting research on trustworthy machine learning with a focus on graph neural networks (GNNs)
  - Robustness of GNNs
  - Differentially Private Graph Learning
- Advised by Aleksandar Bojchevski

### Sapienza University of Rome

Rome, Italy

M.Sc. in Computer Science GPA: **29.23/30**

Dec 2019 - Jan 2022

- Graduated with distinction
- Successfully completed the excellence track of the Computer Science Department

### Sapienza University of Rome

Rome, Italy

B.Sc. in Computer Science GPA: **27.48/30**

Sep 2016 - Dec 2019

- Graduated with distinction

## Experience

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### Teaching Assistant, Universität zu Köln

Köln, Germany

Machine Learning course

Summer Semester 2023

- Develop homework assignments and in-class exercises and provide guidance through in-class problem-solving sessions

### GLADIA Research Group, Sapienza University of Rome

Rome, Italy

Master's thesis development

Apr 2021 - Jan 2022

- **Title:** *Human-Friendly Interpretation of a 3D Point Clouds Classifier*
- Design and implementation of a novel 3D deep generative framework to reconstruct 3D point clouds via Adversarial Autoencoder
- Explanation of a deep neural model dealing with 3D data (PointNet) through a post-hoc technique to visualize what the artificial neural network has learned

### MCLab Research Group, Sapienza University of Rome

Rome, Italy

Bachelor's thesis development

Apr 2019 - Dec 2019

- **Title:** *ModelsTranslator, a translating tool for biological models*

## Attended

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### CMMRS Pre-Doctoral Research School

Remote

Cornell University, Maryland University, Max Planck Institute

Aug 2021

### Machine Learning Summer School 2021 Tapei

Remote

Max Plack Institute

Aug 2021

## Publications

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S. H. Zargarbashi, **S. Antonelli**, and A. Bojchevski (2023). "Conformal Prediction Sets for Graph Neural Networks". In: *Proceedings of the 40th International Conference on Machine Learning*.

**S. Antonelli**, D. Avola, L. Cinque, D. Crisostomi, G. L. Foresti, F. Galasso, M. R. Marini, A. Mecca, and D. Pannone (2022). "Few-Shot Object Detection: A Survey". In: *ACM Comput. Surv.* 11s. ISSN: 0360-0300. DOI: 10.1145/3519022.

D. Crisostomi, **S. Antonelli**, V. Maiorca, L. Moschella, R. Marin, and E. Rodolà (2022). "Metric Based Few-Shot Graph Classification". In: *The First Learning on Graphs Conference*.

## Skills

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**Programming** Python (NumPy, Scikit-learn, Matplotlib, Plotly etc.), C++, Java

**Framework** PyTorch, Pytorch Lightning, WandB, Git, Docker

**Miscellaneous** MacOS, Linux, Windows, Shell (Bash/Zsh), Slurm,  $\LaTeX$ (Overleaf/R Markdown)