

Luca Moschella

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Education

Sapienza University of Rome

PHD IN COMPUTER SCIENCE

- Supervisor: Prof. Emanuele Rodolà.

[Rome, Italy](#)

2020 - present

Sapienza University of Rome

M.S. IN COMPUTER SCIENCE (GRADUATED WITH 110/110 CUM LAUDE, GRADE AVERAGE: 30.3/30)

- Dissertation: Neurospectralization: Learning to hear shapes
- Supervisor: Prof. Emanuele Rodolà.

[Rome, Italy](#)

2018 - 2019

Pi School 📌

SCHOOL OF ARTIFICIAL INTELLIGENCE

- Received a two-months full scholarship of 25'000€ to participate at the School of Artificial Intelligence of Pi School. As a scholarship winner, I worked on a project presented by the National Congress of Notaries developing AI-based solutions on NLP problems.

[Rome, Italy](#)

April 29 - June 21, 2019

Sapienza University of Rome

B.S. IN COMPUTER SCIENCE (GRADUATED WITH 110/110 CUM LAUDE, GRADE AVERAGE: 30.5/30)

- Dissertation: Experimental analysis of some topological aspects of bayesian networks in the modeling of peer-evaluation.
- Supervisor: Prof. Andrea Sterbini.

[Rome, Italy](#)

2014 - 2017

Experience

NNAISENSE 📌

RESEARCH INTERN

- Designed and implemented a generic deep learning template to bootstrap industrial projects and automate the hyperparameters tuning.
- Improved the company infrastructure to streamline the development and deployment of deep learning solutions.

[Lugano, Switzerland](#)

Jul. 2021 - present

Deep Learning and Applied AI course 📌

TEACHING ASSISTANT

- Designed and implemented the course lab sessions to explain and show the students fundamentals and cutting-edge techniques in many areas of deep learning, with a strong emphasis on interactions and animations to aid the students understanding.

[Sapienza University of Rome](#)

2nd semester 2020 and 2021

Honors

ABB Scholarships

Won scholarships for academic merits sponsored by ABB for ten consecutive years.

Sapienza University of Rome Scholarship

Won a scholarship for academic merits sponsored by Sapienza to fully cover the B.S. tuition fees.

Projects selection

NN Template 📌

OPEN SOURCE

- Popular template to bootstrap a *PyTorch* project with *PyTorch Lightning*, *Hydra*, *W&B*, *DVC* and *Streamlit*.
- Enforce best practices in data versioning, code organization, reproducibility, hyperparameters comparison and model inference.

[Sapienza University of Rome](#)

Mar. 2021

Dynamic sketch recognizer 📌

COURSE OF COMPUTER VISION

- A system that can recognize sketches drawn on a touchscreen (numbers, MNIST-like).
- Built an Android application to gather the dataset, used Python with *tsfresh* to extract features from time series and *scikit-learn* to classify.

[Sapienza University of Rome](#)

Jan. 2019 - Feb. 2019



Crimes at Los Angeles 📌

COURSE OF MACHINE LEARNING

- Analyzed the crimes dataset made available by the city of Los Angeles and classified the crime type given the other available features.

[Sapienza University of Rome](#)

Feb. 2018 - Mar. 2018

- Selected as the best course project  in 2018.
- A system that can recommend to Twitter users whichever item can be expressed in terms of BabelNet  semantic categories.
- Twitter users and items are represented in the same space, in terms of semantic categories, exploiting all the available information.






Biotouch

- A system that can recognize users from their writing style on a touchscreen.

Talks

Spectral Unions of Partial Deformable 3D Shapes @ MEDITERRANEAN MACHINE LEARNING SUMMER SCHOOL 	Poster Presenter	Jan. 14, 2021	Digital
Learning Set Operations for Deformable Shapes @ ELLIS WORKSHOP ON GEOMETRIC AND RELATIONAL DEEP LEARNING 	Poster Presenter	Apr. 24, 2020	Digital

Summer Schools

◦ Mediterranean Machine Learning summer school 	Admission upon selection	Jan 11-16, 2021	Digital
◦ ACDL 2020: 3rd Advanced Course on Data Science & Machine Learning 	Admission upon selection	July 13-17, 2020	Siena, Italy
◦ Machine Learning for Non-Matrix Data 		June 26, 2020	Digital
◦ 3rd International Summer School on Deep Learning 		July 22-26, 2019	Warsaw, Poland
◦ Symposium on Geometry Processing 	Student Volunteer	July 8-10, 2019	Milan, Italy

Publications

Peer reviewed

- [Nor+21b] A. Norelli, A. Santilli, G. Mariani, **L. Moschella**, G. Parascandolo, S. Melzi, and E. Rodolà. “Symbol Interpretation Task (SIT)”. In: *Beyond the Imitation Game Benchmark (BIG-bench) in the Workshop on Enormous Language Models (WELM) at ICLR*. 2021. URL: <https://github.com/google/BIG-bench>.
- [Tra+21] G. Trappolini, L. Cosmo, **L. Moschella**, R. Marin, S. Melzi, and E. Rodolà. “Shape Registration in the Time of Transformers”. In: *Thirty-Fifth Conference on Neural Information Processing Systems*. 2021. URL: <https://openreview.net/forum?id=ui4xChWcA4R>.
- [De +17a] M. De Marsico, **L. Moschella**, A. Sterbini, and M. Temperini. “Effects of Network Topology on the OpenAnswer’s Bayesian Model of Peer Assessment”. In: *Data Driven Approaches in Digital Education*. Ed. by É. Lavoué, H. Drachsler, K. Verbert, J. Broisin, and M. Pérez-Sanagustín. Lecture Notes in Computer Science. Cham: Springer International Publishing, 2017, pp. 385–390. ISBN: 978-3-319-66610-5. DOI: 10.1007/978-3-319-66610-5_31.
- [De +17b] M. De Marsico, **L. Moschella**, A. Sterbini, and M. Temperini. “Performance Variations of the Bayesian Model of Peer-Assessment Implemented in OpenAnswer Response to Modifications of the Number of Peers Assessed and of the Quality of the Class”. In: *2017 16th International Conference on Information Technology Based Higher Education and Training (ITHET)*. July 2017, pp. 1–6. DOI: 10.1109/ITHET.2017.8067814.

Preprints

- [Mos+21] **L. Moschella**, S. Melzi, L. Cosmo, F. Maggioli, O. Litany, M. Ovsjanikov, L. Guibas, and E. Rodolà. *Spectral Unions of Partial Deformable 3D Shapes*. Mar. 31, 2021. arXiv: 2104.00514 [cs]. URL: <http://arxiv.org/abs/2104.00514> (visited on 04/02/2021).