Luca Scofano

PhD Candidate, AI Researcher

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About Me

My research focuses on the intersection of embodied AI and uni/multi-modal learning using LLMs/VLMs. In my ongoing Ph.D. program, I delved into topics such as multi-body pose forecasting, scene-aware pose forecasting, exploring higher-order topologies in data, and in-context learning for procedural anomaly detection.

Education

Sapienza University of Rome — Rome, Italy
Ph.D. student, Data Science, with a specific focus on Human Behaviour and Embodied AI — *Nov. 2021 – Present*

Sapienza University of Rome — Rome, Italy
Master of Science, Data Science — *Nov. 2019 – Nov. 2021*

Sapienza University of Rome — Rome, Italy
Bachelor of Arts, Economics — *Nov. 2016 – Nov. 2019*

Experience

Visiting Researcher — May 2024 – Oct. 2024
TU Darmstadt — *Darmstadt, Germany*

- Working on the multimodal grounding for Embodied AI
- Working on Graph Neural Networks for Embodied AI

Teaching Assistant for Advanced Machine Learning — Sep. 2023 – Feb. 2024
Sapienza University of Rome — *Rome, italy*

- Assisted in lectures, project preparation, and evaluation for machine learning techniques and deep learning models. Was also part of a series of guest lectures and gave an overview of Embodied AI

Teaching Assistant for Fundamentals of Data Science — Sep. 2022 – Feb. 2023
Sapienza University of Rome — *Rome, italy*

- Fundamentals of Data Science and Laboratory (Assisted in lectures, project preparation, and evaluation for data science basics, data mining, and machine learning

Publications

Following the Human Thread in Social Navigation
***Scofano, L.**, Sampieri, A., Campari, T., Sacco, V., Spinelli, I., Ballan, L., Galasso, F. (2024). pre-print*

PREGO: online mistake detection in PRocedural EGOcentric videos.
*Flaborea, A., Melendugno, G.M., Plini, L., **Scofano, L.**, Matteis, E.D., Furnari, A., Farinella, G.M., Galasso, F. 2024 IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*

TopoX: A Suite of Python Packages for Machine Learning on Topological Domains. pre-print
Hajij, M., et. al, 2024 pre-print

ICML 2023 Topological Deep Learning Challenge: Design and Results
Papillon, M., et. al TAG-ML, ICML23

Staged Contact-Aware Global Human Motion Forecasting
***Scofano, L.**, Sampieri, A., Schiele, E., Matteis, E.D., Leal-Taix'e, L., Galasso, F., BMVC '23 Oral Presentation (top %4)*

Best Practices for 2-Body Pose Forecasting.
Rahman, M.R.,* ***Scofano, L.****, Matteis, E.D., Flaborea, A., Sampieri, A., Galasso, F. 2023 IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 3614-3624. Best Paper Award*

About latent roles in forecasting players in team sports
Scofano, L.*, Sampieri, A., Re, G., Almanza, M., Panconesi, A., Galasso, F.Neural Processing Letters*

Skills

Languages: English fluently, Italian fluently
Programming Languages: Python, SQL, R
Libraries: PyTorch, Keras, PyTorch Geometric, TopoX, NetworkX, Pandas, NumPy, Matplotlib