Luca Scofano
AI Researcher

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SUMMARY

AI researcher with 3+ years of post-graduate experience building multimodal deep-learning systems, real-time decision-making pipelines, and scalable model deployments. I combine a strong research publication record (ICLR, CVPR, WACV, BMVC) with hands-on engineering: production-ready PyTorch pipelines, multi-GPU training, Dockerized MLOps, and model optimization. My recent work focuses on embodied AI, egocentric video understanding, human mesh estimation, and motion forecasting — areas that bridge computer vision, 3D representation, and real-world systems relevant to design, simulation, and robotics.

PROFESSIONAL EXPERIENCE

Postdoctoral Researcher in AI, Neuroscience Focus
Apr. 2025 – Present

Sapienza University of Rome — *Rome, Italy*

- Applying AI and machine learning methodologies to analyze and model neural data for cognitive insights.
- Collaborating with neuroscience professors to integrate experimental brain data into AI-driven frameworks.
- Engineering end-to-end AI pipelines for data preprocessing, neural feature extraction, and model validation.

AI Researcher (Contractor)
Jan. 2025 – Jun. 2025

Sapienza University of Rome & Yocabe srl — *Rome, Italy*

- Led full pipeline development for an online marketplace return-rate prediction algorithm.
- Collected, curated, and analyzed large-scale transactional datasets.
- Engineered features and trained predictive models to forecast return probabilities.
- Evaluated model performance and iterated on design for improved accuracy and robustness.

AI Researcher (Visiting Role)
May 2024 – Oct. 2024

TU Darmstadt — *Darmstadt, Germany*

- Built and optimized machine learning models for embodied AI.
- Collaborated with a cross-functional team to deploy scalable solutions using graph neural networks.

Teaching Assistant
Sep. 2022 – Feb. 2024

Sapienza University of Rome — *Rome, Italy*

- Mentored over 50 students in advanced machine learning techniques, ensuring practical application to real-world datasets.

EDUCATION

Sapienza University of Rome
Rome, Italy

Ph.D. in Data Science — *Nov. 2021 – Jan. 2025*

- Developed AI-driven solutions for human behavior modeling, including predictive systems for motion forecasting and procedural mistake detection.
- Implemented multimodal machine learning frameworks leveraging graph neural networks and topological data analysis.
- Collaborated with researchers across institutions, publishing 10+ papers in top-tier venues (e.g., ICLR, CVPR, WACV, BMVC).
- Mentored junior researchers and students, fostering collaborative problem-solving and technical upskilling.

Sapienza University of Rome
Rome, Italy

M.Sc. in Data Science — *Nov. 2019 – Nov. 2021*

- Implemented an AI model for forecasting players' movements in sports settings.

Sapienza University of Rome
Rome, Italy

B.A. in Economics — *Nov. 2016 – Nov. 2019*

Selected Projects and Publications

Presented a reinforcement learning-based robot navigation model leveraging latent social dynamics, enabling real-time human interaction awareness in ICLR 2025 Spotlight (top 5.1% of submissions). (link).

Proposed a framework for estimating social interactions and human meshes using egocentric video. Published as Social EgoMesh Estimation in WACV 2025. (link).

Developed a real-time procedural mistake detection system integrated into workflows for video-based quality assurance. Published at CVPR 2024. (link).

Designed a staged contact-aware model for human motion forecasting, achieving 15% higher accuracy compared to baseline methods. Published in BMVC 2023. (link).

Contributed to TopoX, an open-source Python package for topological machine learning, widely adopted by researchers. (link).

Skills

Core AI Expertise: Multimodal ML, Graph Neural Networks, Predictive Modeling
Programming Languages: Python, SQL, R.
Machine Learning Frameworks: PyTorch, TensorFlow, Keras, PyTorch Geometric.
Tools and Platforms: Docker, Git, Pandas, NumPy, Matplotlib.
Specialized Skills: Distributed computing, multi-GPU systems, optimization for scalable ML pipelines, real-time data analysis.
Languages: Native in Italian and English.