Luca Zhou

■ lucazhou2000@gmail.com | **\(\Phi\)** Website | **\(\Omega\)** GitHub | **\(\Dmi\)** LinkedIn

Education

Sapienza University of Rome & CUHK Shenzhen (Exchange)

2023 - 2025

MSc in Computer Science: AI-centered track

GPA: 30.3/31

University of Rome Tor Vergata BSc in Computer Science 2020 - 2023

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Final Grade: 110 Summa Cum Laude

Publications

Zhou, L., Solombrino, D., Crisostomi, D., Bucarelli, M. S., Silvestri, F., & Rodolà, E. (2024). Atm: Improving model merging by alternating tuning and merging. arXiv preprint arXiv:2411.03055.

Skills

Programming Languages & Tools: Python, PyTorch, Weights & Biases, Git, C/C++, Java, SQL Spoken Languages: Mandarin Chinese (Native), Italian (Native), English (Advanced)

Experience

Research Intern (Hybrid)

Panasonic North America / Stanford University

Jun. 2025 - Nov. 2025 (expected)

- Contributed to the development of a novel reinforcement learning framework and the curation of a specialized dataset to enhance LLM code generation.
- Worked under the supervision of Prof. Tatsunori Hashimoto from Stanford University.

Visiting Graduate Student Researcher

Department of Computer Science and Engineering, UC San Diego

Mar. 2025 - May 2025

- Led a research project on benchmarking VLMs for time series captioning and understanding, collaborating with Rose STL Lab, advised by Prof. Rose Yu.
- Remote work started in Jan. 2025.

Graduate Student Researcher

GLADIA, Sapienza University of Rome

Jun. 2024 - Feb. 2025

• Investigated novel approaches for model merging and task arithmetic.

Workshop Reviewer

UniReps, NeurIPS 2024

Oct. 2024

Machine Learning Intern

Reveal SRL, Rome

Aug. 2023 - Dec. 2023

- Led a predictive analytics project in collaboration with the Italian Union of Chambers of Tourism.
- Implemented and optimized the *Informer* transformer model to forecast Italian national tourism trends.

Projects

Transfer Learning of Mathematical Skills in Small LLMs

The Chinese University of Hong Kong (Shenzhen)

Dec. 2024

• Investigated positive transfer learning among mathematical skills in small LLMs.

A Survey of NLI Downstream Tasks and Universality

Sapienza University of Rome

Jun. 2024

• A comprehensive investigation of NLI's downstream applications, with additional benchmarks.

A Contrastive Learning Framework for Closed-Set Finger Photo Identification

Sapienza University of Rome

Jan. 2024

 \bullet Developed a biometric recognition system for recognizing subjects based on finger-photos.

LLM-based Explanations for Mitigating the Clever Hans Effect

University of Rome Tor Vergata

Feb. 2023 - Jul. 2023

- Designed an explainable AI pipeline to detect and mitigate spurious correlations in datasets.
- $\bullet\,$ Fine-tuned BERT on refined datasets, achieving a 40% accuracy improvement over the baseline model.

Awards

Iliadship Scholarship & Mentorship

2023

• One of 10 yearly recipients nationwide for a merit-based scholarship and mentorship program by Iliad.

Extracurricular Activities

Board of European Students of Technology (BEST)

Fundraising Coordinator & Internal Relationships

Feb. 2021 - Jul. 2023