

Luca Zhou

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Education

Sapienza University of Rome & CUHK Shenzhen (Exchange)	2023 – 2025
MSc in Computer Science: AI-centered track	GPA: 4.0/4.0
University of Rome Tor Vergata	2020 – 2023
BSc in Computer Science	Final Grade: 110 <i>Summa Cum Laude</i>

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
Natural Languages: Mandarin Chinese (Native), Italian (Native), English (Advanced)

Experience

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
- 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
- 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