Luca Zhou

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https://github.com/LuckerZOfficiaL

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

Experience

Visiting Graduate Student Researcher
Department of Computer Science and Engineering, UCSD *Mar. 2025 – May 2025*
- Conducting research on Time Series Captioning with LLMs under the supervision of 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 – Jun. 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*
- Selected as one of 10 recipients nationwide for a prestigious 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*