Chengsong Huang

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EDUCATION

Washington University in St. Louis

Advisor: Prof. Jiaxin Huang Ph.D. in Computer Science

Fudan UniversitySep. 2019 - Jun. 2023
Software School of Fudan University
Shanghai, China

Sep. 2023 - Present

St. Louis, MO

B.S. in Software Engineering

RESEARCH INTERESTS

My research interests broadly lies in area related to Large Language Models (LLMs) and Natural Language Processing (NLP), with a previous experience on:

- Optimizing inference and training efficiency.
- Enhancing planning and reasoning in large language models.

RESEARCH PAPERS (SELECTED)

- * stands for equal contribution or alphabetical ordering.
- 1. **Huang, C.**, Huang, L., Leng, J., Liu, J., and Huang, J. "Efficient Test-Time Scaling via Self-Calibration". *arXiv preprint* arXiv:2503.00031, 2025.
- 2. Leng, J., **Huang, C.**, Huang, L., Lin, B. Y., Cohen, W. W., Wang, H., and Huang, J. "CrossWordBench: Evaluating the Reasoning Capabilities of LLMs and LVLMs with Controllable Puzzle Generation". *arXiv preprint arXiv:2504.00043*, 2025.
- 3. **Huang, C.**, Huang, L., and Huang, J. "Divide, Reweight, and Conquer: A Logit Arithmetic Approach for In-Context Learning". *arXiv preprint arXiv:2410.10074*, 2024.
- 4. Leng, J., **Huang, C.**, Zhu, B., and Huang, J. "Taming Overconfidence in LLMs: Reward Calibration in RLHF". *arXiv* preprint arXiv:2410.09724, 2024.
- 5. **Huang, C.***, Liu, Q.*, Lin, B.*, Pang, T., Du, C., and Lin, M. "LoraHub: Efficient Cross-Task Generalization via Dynamic LoRA Composition", *Conference on Language Modeling (COLM)*, 2024.
- 6. Chen, L., **Huang**, C., Zheng, X., Lin, J., and Huang, X. "TableVLM: Multi-modal Pre-training for Table Structure Recognition", *Association for Computational Linguistics (ACL)*, 2023.
- 7. Lin, B.*, **Huang, C.***, Liu, Q., Gu, W., Sommerer, S., and Ren, X. "On Grounded Planning for Embodied Tasks with Language Models", *AAAI Conference on Artificial Intelligence (AAAI)*, 2023.
- 8. Gu, C., **Huang, C.**, Zheng, X., Chang, K., and Hsieh, C. "Watermarking Pre-trained Language Models with Backdooring", arXiv preprint arXiv:2210.07543, 2022.

EXPERIENCE

Sea AI lab (SAIL)

Jan. 2023 - Jun. 2023

Research intern (Mentor: Qian Liu)

LoraHub: Efficient Cross-Task Generalization via Dynamic LoRA Composition

USC INK lab May. 2022 - Jan. 2023

Research intern (Mentor: Xiang Ren, Bill Yuchen Lin)

On Grounded Planning for Embodied Tasks with Language Models

SKILLS

- Programming Languages: Proficient in Python, SQL and Java.
- Libraries & Frameworks: Expertise in PyTorch, TensorFlow, Hugging Face Transformers, and Scikit-learn.
- Tools & Platforms: Proficient with Git and Wandb. Experience working with LSF and Slurm.

HONORS AND AWARDS

First Prize in Scholarship for Outstanding Students at Fudan University

Awarded a Scholarship of Shanghai City

Dec. 2021

Nov. 2022

SERVICE

Conference Reviewer: NAACL 2024,2025, ACL 2024,2025, EMNLP 2024,2025, ICLR 2025.