Dingjie James Song

CONTACT Information Lehigh University Bethlehem Pennsylvania USA Email Home Page GitHub Google Scholar

EDUCATION

Ph.D. in Computer Science, Lehigh University, Bethlehem, PA, USA

Present

Advisor: Dr. Lichao Sun

Master of Software Engineering, Nanjing University, Nanjing, China

June 2023

Advisors: Dr. Xinyu Dai, Dr. Jidong Ge

GPA: 4.4/5.0

Bachelor of Software Engineering, Nanjing University, Nanjing, China

June 2021

Advisors: Dr. Xinyu Dai, Dr. Jidong Ge

GPA: 4.3/5.0

RESEARCH INTERESTS My research interests lie in the field of Natural Language Processing (NLP), with a particular focus on intelligent interactive systems and domain-specific large language models (LLMs). I am particularly interested in multimodal LLMs, with a recent emphasis on long-context multimodal models that aim to understand, generate, and interact within long contexts. Additionally, my research covers several other topics, including medical LLMs and multilingual LLMs. Prior to the emergence of LLMs, I had a strong interest in task-oriented dialogue systems.

SUBMITTED PUBLICATIONS

- 16. Zhejian Yang, Yongchao Chen, Xueyang Zhou, Jiangyue Yan, Dingjie Song, Yinuo Liu, Yuting Li, Yu Zhang, Pan Zhou, Hechang Chen, Lichao Sun. (2025) Agentic Robot: A Brain-Inspired Framework for Vision-Language-Action Models in Embodied Agents. [arXiv:2505.23450]. Preprint.
- 15. Tao Yu, Yi-Fan Zhang, Chaoyou Fu, Junkang Wu, Jinda Lu, Kun Wang, Xingyu Lu, Yunhang Shen, Guibin Zhang, **Dingjie Song**, Yibo Yan, Tianlong Xu, Qingsong Wen, Zhang Zhang, Yan Huang, Liang Wang, Tieniu Tan. (2025). *Aligning Multimodal LLM with Human Preference: A Survey*. [arXiv:2503.14504]. *Preprint*.
- 14. Guiyao Tie, Zeli Zhao, **Dingjie Song**, Fuyang Wei, Rong Zhou, Yurou Dai, Wen Yin, Zhejian Yang, Jiangyue Yan, Yao Su, Zhenhan Dai, Yifeng Xie, Yihan Cao, Lichao Sun, Pan Zhou, Lifang He, Hechang Chen, Yu Zhang, Qingsong Wen, Tianming Liu, Neil Zhenqiang Gong, Jiliang Tang, Caiming Xiong, Heng Ji, Philip S. Yu, Jianfeng Gao (2025). A Survey on Posttraining of Large Language Models. [arXiv:2503.06072]. Preprint.
- 13. Yi-Fan Zhang, Hang Li, **Dingjie Song**, Lichao Sun, Tianlong Xu, Qingsong Wen. (2025). From Correctness to Comprehension: AI Agents for Personalized Error Diagnosis in Education. [arXiv:2502.13789]. Preprint.
- 12. Yuhao Du, Shunian Chen, Wenbo Zan, Peizhao Li, Mingxuan Wang, **Dingjie Song**, Bo Li, Yan Hu, Benyou Wang. (2024). BlenderLLM: Training Large Language Models for Computer-Aided Design with Self-improvement. [arXiv:2412.14203]. Preprint.
- 11. Xidong Wang*, **Dingjie Song*** (equal contribution), Shunian Chen, Chen Zhang, Benyou Wang. (2024). LongLLaVA: Scaling Multi-modal LLMs to 1000 Images Efficiently via Hybrid Architecture. [arXiv:2409.02889]. Preprint.

ACCEPTED PUBLICATIONS

10. **Dingjie Song***, Sicheng Lai* (equal contribution), Shunian Chen, Lichao Sun, Benyou Wang. (2024). Both Text and Images Leaked! A Systematic Analysis of Multimodal LLM Data Contamination. [arXiv:2411.03823].

ICML 2025 BIG-BUG Workshop

9. Zhenyang Cai, Junying Chen, Rongsheng Wang, Weihong Wang, Yonglin Deng, **Dingjie Song**, Yize Chen, Zixu Zhang, Benyou Wang. (2024). On the Compositional Generalization of Multimodal LLMs for Medical Imaging. [arXiv:2412.20070].

ACL main 2025

- 8. Wentao Ge, Shunian Chen, Guiming Hardy Chen, Zhihong Chen, Junying Chen, Shuo Yan, Chenghao Zhu, Ziyue Lin, Wenya Xie, Xinyi Zhang, Yichen Chai, Xiaoyu Liu, **Dingjie Song**, Xidong Wang, Anningzhe Gao, Zhiyi Zhang, Jianquan Li, Xiang Wan, Benyou Wang. (2023). MLLM-Bench: Evaluating Multimodal LLMs with Per-sample Criteria. [arXiv:2311.13951] NAACL main 2025
- 7. **Dingjie Song**, Wenjun Wang, Shunian Chen, Xidong Wang, Michael Guan, Benyou Wang. (2024). Less is More: A Simple yet Effective Token Reduction Method for Efficient Multi-modal LLMs. [arXiv:2409.10994]

COLING 2025

- Dingjie Song, Shunian Chen, Guiming Hardy Chen, Fei Yu, Xiang Wan, Benyou Wang. (2024). MileBench: Benchmarking MLLMs in Long Context. [arXiv:2404.18532]
 COLM 2024
- 5. Junying Chen, Xidong Wang, Anningzhe Gao, Feng Jiang, Shunian Chen, Hongbo Zhang, **Dingjie Song**, Wenya Xie, Chuyi Kong, Jianquan Li, Xiang Wan, Haizhou Li, Benyou Wang. (2023). *HuatuoGPT-II*, One-stage Training for Medical Adaption of LLMs. [arXiv:2311.09774] COLM 2024
- Xidong Wang*, Guiming Hardy Chen*, Dingjie Song* (equal contribution), Zhiyi Zhang, Zhihong Chen, Qingying Xiao, Feng Jiang, Jianquan Li, Xiang Wan, Benyou Wang, Haizhou Li. (2024) CMB: A Comprehensive Medical Benchmark in Chinese. [arXiv:2308.08833] NAACL main 2024
- 3. Huang Huang*, Fei Yu*, Jianqing Zhu* (equal contribution), Xuening Sun, Hao Cheng, **Dingjie Song**, Zhihong Chen, Abdulmohsen Alharthi, Bang An, Juncai He, Ziche Liu, Zhiyi Zhang, Junying Chen, Jianquan Li, Benyou Wang, Lian Zhang, Ruoyu Sun, Xiang Wan, Haizhou Li, Jinchao Xu. (2024) AceGPT, Localizing Large Language Models in Arabic. [arXiv:2309.12053] **NAACL main 2024**
- 2. Pengfei Sun*, **Dingjie Song*** (equal contribution), Yawen Ouyang, Zhen Wu, Xinyu Dai. (2023) Episode-based Prompt Learning for Any-shot Intent Detection. Springer **NLPCC 2023**; Oral
- Pengfei Sun, Yawen Ouyang, Dingjie Song, Xinyu Dai. (2022) Self-Supervised Task Augmentation for Few-Shot Intent Detection. Springer JCST 2022

RESEARCH EXPERIENCE Research Intern, Squirrel AI

October 2024-January 2025

Mentor: Dr. Tianlong Xu and Dr. Qingsong Wen

Focus: Multimodal LLM and Math LLM.

Research Assistant, The Chinese University of Hong Kong, Shenzhen July 2023–September 2024

Mentor: Dr. Benyou Wang

Focus: Multimodal LLM, Medical LLM, and Multilingual LLM.

NLP Research Intern, International Digital Economy Academy (IDEA) July 2022-May 2023

Mentor: Dr. Jiaxing Zhang

Focus: In-context learning and Code LLM.

Graduate Student, NLP Group, Nanjing University

August 2021-June 2022

Advisor: Dr. Xinyu Dai

Focus: Low-resource spoken language understanding.

Honors and Awards Outstanding Graduate Student, Nanjing University

2023

Yingcai Scholarship, Nanjing University

2022

Renmin Scholarship (Peoples Scholarship), Nanjing University

2018-2021

Third Runner's Up in 15th Citi Cup Financial Innovation Application Competition, Citigroup 2019

Second Runner's Up in 2019 "Chain to Future" University Blockchain Technology Application Competition, CCF 2019

Outstanding Student Leader of the Communist Youth League, Nanjing University 2018–2019

SKILLS

Computer Skills: Proficient in Python, Java, JavaScript, SQL, HTML/CSS. Experience with PyTorch, DeepSpeed, Colossal-AI, FAISS, Elastic Search, Spark, Git, IATEX, ssh.

Natural languages: English, Mandarin, Cantonese.