XIAOCHENG YANG

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EDUCATION

University of Illinois Urbana-Champaign   Aug 2024 - Expected May 2026
Master of Science in Computer Science   *Current GPA: 3.95/4.0*
Related Coursework:
Advanced Topics in NLP, ML for Software Engineering, Text Information Systems

New York University Shanghai   Aug 2020 - May 2024
Bachelor of Science in Computer Science, Minor in Mathematics   GPA: 3.92/4.0, In-Major GPA: 4.0/4.0
Related Coursework:
Natural Language Processing, Reinforcement Learning, Computer Vision
Study Away:
New York University, New York, USA   Sep 2022 - Dec 2022

PUBLICATIONS

- **Yang, X.**, Shashidhar, S., Hakkani-Tür, D. (2025) Question Generation for Assessing Early Literacy Reading Comprehension. Proc. 10th Workshop on Speech and Language Technology in Education (SLaTE), 187-188
- Shuhaib Mehri, **Xiaocheng Yang**, Takyoung Kim, Gokhan Tur, Shikib Mehri, and Dilek Hakkani-Tür. 2025. Goal Alignment in LLM-Based User Simulators for Conversational AI. Preprint.
- Nimet Beyza Bozdag, Shuhaib Mehri, **Xiaocheng Yang**, Hyeonjeong Ha, Zirui Cheng, Esin Durmus, Jiaxuan You, Heng Ji, Gokhan Tur, and Dilek Hakkani-Tür. 2025. Must Read: A Systematic Survey of Computational Persuasion. Preprint.
- Kunlun Zhu, Hongyi Du, Zhaochen Hong, **Xiaocheng Yang**, Shuyi Guo, Zhe Wang, Zhenhailong Wang, Cheng Qian, Robert Tang, Heng Ji, and Jiaxuan You. 2025. MultiAgentBench : Evaluating the Collaboration and Competition of LLM agents. In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), pages 8580–8622, Vienna, Austria. Association for Computational Linguistics.
- Cheng Qian, Peixuan Han, Qinyu Luo, Bingxiang He, Xiusi Chen, Yuji Zhang, Hongyi Du, Jiarui Yao, **Xiaocheng Yang**, Denghui Zhang, Yunzhu Li, and Heng Ji. 2025. EscapeBench: Towards Advancing Creative Intelligence of Language Model Agents. In Proceedings of the 63rd Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers), pages 798–820, Vienna, Austria. Association for Computational Linguistics.
- Vardhan Dongre, **Xiaocheng Yang**, Emre Can Acikgoz, Suvodip Dey, Gokhan Tur, and Dilek Hakkani-Tur. 2025. ReSpAct: Harmonizing Reasoning, Speaking, and Acting Towards Building Large Language Model-Based Conversational AI Agents. In Proceedings of the 15th International Workshop on Spoken Dialogue Systems Technology, pages 72–102, Bilbao, Spain. Association for Computational Linguistics.
- **Xiaocheng Yang**, Bingsen Chen, and Yik-Cheung Tam. 2024. Arithmetic Reasoning with LLM: Prolog Generation & Permutation. In Proceedings of the 2024 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (Volume 2: Short Papers), pages 699–710, Mexico City, Mexico. Association for Computational Linguistics.

RESEARCH EXPERIENCE

Siebel School of Computing and Data Science, University of Illinois Urbana-Champaign
Graduate Research Assistant | Advisor: Prof. Gokhan Tur, Prof. Dilek Hakkani-Tür   Aug 2024 - Present

- Reproduced the LLM ReAct framework for the task-oriented dialogue domain in the environment of MultiWOZ; Conducted prompt engineering by introducing friction rules in the prompt, to promote machine-user interaction and mitigate ambiguity in task-oriented dialogues; Observed an increment in inform and success scores on the task-oriented dialogue benchmark MultiWOZ by 5.5% and 3% respectively when proper rules are given in the prompt.

- Built and experimented with multi-agent systems for task-oriented dialogues, involving a verifier, friction generator, and ReAct agent; Observed improved inform scores when multi-agents are properly involved.
- Participated in Project CELaRAI, responsible for generating test questions for K-2 early literacy education using LLM and building LLM-based systems simulating the interactions between a teacher and a K-2 student; Built test question generation systems for early literacy based on the YourBench framework and observed 50.4% MAP@1 with Rouge-L F1 on the QA generation benchmark FairytaleQA, outperforming previous methods.

Department of Computer Science, New York University Shanghai
Undergraduate Research Assistant | Advisor: Prof. Yik-Cheung (Wilson) Tam   Jun 2023 – May 2024
- Finetuned LoRAs for large language models to investigate model mathematic reasoning ability on the arithmetic reasoning benchmark GSM8K; Experimented with different output settings, including Chain-of-Thought, Prolog generation, and combinations of both output strategies; Found that Prolog generation outstripped other strategies; Open-sourced the GSM8K-Prolog dataset.
- Experimented with data augmentations on Prolog data; Observed a 10.9% margin of accuracy on the GSM8K test set and a 22.6% margin on the GSM-HARD test set over the Chain-of-Thought baseline with Prolog permutation strategy; Investigated the divergence between cross entropy loss and the actual accuracy of Prolog codes.
- Finetuned LoRAs for large language models to solve dialogue state tracking (DST) using the task-oriented dialogue benchmark MultiWOZ; Experimented with different LoRA settings, model scales, data scales, and different output settings, including slot-level QA and JSON format; Achieved a new SOTA in end-to-end DST methods, obtaining an 82.4% joint goal accuracy.

Department of Economics, New York University Shanghai
Undergraduate Research Assistant | Advisor: Prof. Guodong Chen, Prof. Yu Zhou   Jun 2022 – Dec 2023
- Conducted a quasi-experimental study on the impact of the school enrollment lottery policies on household expenditures; Experimented with data cleaning strategies, including outlier filtering, winsorization, and logarithms; Utilized propensity score matching and difference-in-difference method, and observed declining household education expenditures after the policy was released.

ACADEMIC SERVICE
- Reviewer, ACL Rolling Review (ARR), May 2025
- Reviewer, ACL Rolling Review (ARR), July 2025

HONORS AND AWARDS
- **Summa Cum Laude**, New York University Shanghai   May 2024
- **Honors in Computer Science**, New York University Shanghai   May 2024
- **NYU Shanghai Excellence Award**, New York University Shanghai   May 2024
- **Dean's List for 2022-2023 Academic Year**, New York University Shanghai   May 2023
- **Dean's List for 2021-2022 Academic Year**, New York University Shanghai   May 2022
- **Dean's List for 2020-2021 Academic Year**, New York University Shanghai   May 2021

TECHNICAL SKILLS
Programming Languages: Python, LaTex, SQL, R, Java
Machine Learning Libraries: PyTorch, Huggingface, Peft, Torchrun, Deepspeed, Pandas, NumPy, Matplotlib, Scikit-Learn
Spoken Languages: Mandarin Chinese (Native), English (TOEFL 105)