

# XIAOCHENG YANG

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## EDUCATION

**University of Illinois Urbana-Champaign**

*Master of Science in Computer Science*

**Related Coursework:**

Advanced Topics in NLP, Numerical Analysis, Text Information Systems

Aug 2024 - Expected May 2026

Current GPA: 4.0/4.0

**New York University Shanghai**

*Bachelor of Science in Computer Science, Minor in Mathematics*

Aug 2020 - May 2024

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
- Shuhaiib Mehri, **Xiaocheng Yang**, Takyung Kim, Gokhan Tur, Shikib Mehri, and Dilek Hakkani-Tür. 2025. [Goal Alignment in LLM-Based User Simulators for Conversational AI](#). Preprint.
- Nimet Beyza Bozdag, Shuhaiib 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, Zhenhai long 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-Tür. 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 104)