

# Chihsheng Jin

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## Research Interests

Large Language Models, Encoded Reasoning, Steganography, Information Extraction, Formal Semantics, Theory of Computation, Psycholinguistics

## Education

<b>University of Rochester</b> , MS in Computational Linguistics	Sept 2023 – May 2025
• GPA: 4.00/4.00	
• <b>Coursework:</b> Machine Learning, End to End Deep Learning, Computational Linguistics, Large Language Models	
<b>Fudan University</b> , BA in Chinese Language	Sept 2019 – June 2023
• GPA: 3.52/4.00	
• <b>Coursework:</b> Psycholinguistics, Phonetics, Language Typology, Data Structures and Algorithms	

## Research Experience

<b>Research Assistant</b> , FACTS.lab – University of Rochester	Apr 2024 – May 2025
• Participated in the study on Cross-Document Event-keyed Machine Summarization.	
• Maintained a codebase for the data collection for a project on cross-document event extraction and upgraded it with a cleaner workflow and relational database support.	

## Professional Experience

<b>Project Management Intern</b> , Shanghai AI Laboratory	July 2022 – Oct 2022
• Graduate student data management with Python and Excel.	
• Organized a one week long workshop on Large Language Models and Multimodal Learning.	
• Participated in organizing the World Artificial Intelligence Conference 2022 in Shanghai.	

## Publications

<b>Seeing Through the MiRAGE: Evaluating Multimodal Retrieval Augmented Generation</b>	Oct 2025
Alexander Martin, William Gantt Walden, Reno Kriz, Dengjia Zhang, Kate Sanders, Eugene Yang, <i>Chihsheng Jin</i> , Benjamin Van Durme	
Arxiv pre-print	
<b>Cross-Document Event-Keyed Summarization</b> <i>(Presented at XLLM@ACL2025 and PEER2025)</i>	Oct 2024
William Gantt Walden, Pavlo Kuchmiichuk, Alexander Martin, <i>Chihsheng Jin</i> , Angela Cao, Claire Sun, Curisia Allen, Aaron Steven White	
ACL Anthology	

## Projects

<b>A Better Tree-of-Thought Prompting scheme</b>	Github link
• A fork of the original Tree-of-Thought project. A new framework was implemented where a symbolic solver will be auto-generated based on the task to help cut down branches during the BFS, which drastically improve the efficiency of the original framework.	
<b>Multiple Context Free Grammar Parser</b>	Github link
• I developed an agenda-based parser that can parse any customized multiple context free languages under 3 degrees.	

**Event Argument Retrieval with LLMs**

PDF

- Master's thesis. I evaluated the argument retrieval capabilities of most powerful LLMs against the FAMuS dataset on two variants of the CEAF metric. To mitigate the inaccurate extractions from LLMs, I developed a retrieval inspired pipeline that significantly improved the quality of the extractions.

**Phonological Mapping influences bilingual speech activation**

PDF

- Senior thesis. A Chinese character-naming experiment was used to test whether the phonological mapping status of cognates in Mandarin and Shanghai Dialect has an effect on the speech production process. Experiments show that the phonological mapping interferes with the common cognate facilitation effect observed by previous studies regardless of how similar the phonetic forms of the cognates are.

**Professional Skills**

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**Languages:** Python, Javascript, HTML/CSS, L<sup>A</sup>T<sub>E</sub>X**Tools:** Linux, Git, Slurm, PostgreSQL, Docker, PyTorch, Lightning, Amazon MTurk**Softwares:** Praat, PsychoPy, Ableton Live, Photoshop**Additional skills:** Audio recording, Mixing and mastering, Composition and music production, Photography.