Siyuan Song

Candidate for B.A. in Linguistics, University of Texas at Austin siyuansong@utexas.edu — (+1)512-230-6335

EDUCATION

University of Texas at Austin, Texas, the US

Aug 2024 — Present

Candidate for B.A. in Linguistics

Persuing Certificate in Advanced Maths

Shanghai Jiao Tong University, Shanghai, China

Aug 2022 — Jun 2024

Candidate for B.A. in English(Linguistics), Transferred

EXPERIENCE

UT Austin NeuroLinguistics Lab

2025 - - Present

Undergraduate Research Assistant Advisor: Dr. Fernando Llanos

Computational Linguistics Group, University of Texas at Austin

2024 — Present

Undergraduate Research Assistant Advisor: Dr. Kyle Mahowald

The CoCoDev Lab at Harvard Psychology

2024 Summer

Visiting Undergraduate Research Intern

Advisor: Dr. Jennifer Hu and Dr. Tomer Ullman

The Computational Linguistics Lab at School of Foreign Languages, SJTU

2023 — Present

Undergraduate Research Assistant

Advisor: Dr. Hai Hu

PUBLICATIONS

Song, S., Hu, J.& Mahowald, K. Language Models Don't Introspect About Their Knowledge of Language (in prep)

Zhu, H., Xu, M., **Song, S.**, Liu, Y., Wang, Y.& Hu, H. A Preliminary Analysis of the Predicative Power of Surprisal in Reading Chinese (under peer review)

Hu, J., Wilcox, E., Song, S., Mahowald, K., & Levy, R. What Can String Probability Tell Us About Grammaticality? (under peer review)

Liu, Y., Shen, Y., Zhu, H., Xu, L., Qian, Z., **Song, S.**, ... & Hu, H. (2024). ZhoBLiMP: a Systematic Assessment of Language Models with Linguistic Minimal Pairs in Chinese. arXiv preprint arXiv:2411.06096. (under peer review)

Yue, S., Song, S., Cheng, X., & Hu, H. Do Large Language Models Understand Conversational Implicature—A Case Study. In Chinese Computational Linguistics: 23rd China National Conference, CCL 2024, Taiyuan, China, July 25–28, 2024, Proceedings (p. 402). Springer Nature. (Highlight Paper, 6/284)

ONGOING PROJECTS

Linguistic Introspection of Large Language Models

In Preparation

Project Leader, Supervised by Dr.Kyle Mahowald and Dr.Jennifer Hu

September 2024 — Present

- Study whether large language models introspect in prompted acceptability judgments
- Designed and built datasets of within-domain and out-of-domain sentences
- Conducted experiments and correlation analysis

Minimal Pair String Probability Comparisons and Grammaticality

Under Review May 2024 — Present

Research Assistant, Supervised by Dr.Jennifer Hu and Dr.Roger Levy

Collected linguistic minimal pairs from previous studies on human acceptability judgments
Conducted experiments and examined the correlation between human acceptability and string probability

Testing Language Models on Chinese Xiehouyu Tasks

In Preparation

Project Leader, supervised by Dr. Hai Hu

September 2023 — September 2024

- Initiated a research project focusing on Xiehouyu (a type of language riddle in Chinese)
- Compared high-frequency and low-frequency Xiehouyu
- \bullet Categorized Xiehouyu into three types: direct, polysemy and homophony
- Designed three tasks to evaluate the reasoning ability of the Large Language Model