

Jerry(Jiarui) Zhang

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EDUCATION

University of Southern California

Ph.D. in Computer Science, Advisor: Willie Neiswanger, GPA: 3.78/4.00

August 2022–Present

Los Angeles, USA

Tsinghua University

Bachelor of Science, Electric Engineering, GPA: 3.64/4.00

August 2018–June 2022

Beijing, China

PUBLICATIONS (* DENOTES EQUAL CONTRIBUTION)

GOOGLE SCHOLAR 

- **J Zhang**, O liu, Y Tianyu, H Jinyi, W Neiswanger. ‘Euclid: Supercharging Multimodal LLMs with Synthetic High-Fidelity Visual Descriptions’, In submission. [Code] [Arxiv] [Demo]
- Y Jiang*, **J Zhang***, K Sun*, Z Sourati, K Ahrabian, K Ma, F Ilievski, J Pujara. ‘MARVEL: Multidimensional Abstraction and Reasoning through Visual Evaluation and Learning’, NeurIPS D&B Track 2024.
- **J Zhang**. ‘Guided Profile Generation Improves Personalization with LLMs’, EMNLP Findings 2024.
- K Ahrabian, Z Sourati, K Sun, **J Zhang**, Y Jiang, F Morstatter, J Pujara. ‘The curious case of nonverbal abstract reasoning with multi-modal large language models’, COLM 2024.
- **J Zhang**, M Khayatkhoei, P Chhikara, F Ilievski. ‘Towards Perceiving Small Visual Details in Zero-shot Visual Question Answering with Multimodal LLMs’, NeurIPS R0-FoMo Workshop, 2023
- **J Zhang**, F Ilievski, K Ma, A Kollaa, J Francis, A Oltramari. ‘A Study of Situational Reasoning for Traffic Understanding’, KDD 2023.
- P Chhikara, **J Zhang**, F Ilievski, J Francis, K Ma. ‘Knowledge-enhanced agents for interactive text games’, K-Cap, 2023 (Best Student Paper Award)
- **J Zhang**, F Ilievski, K Ma, J Francis, A Oltramari. ‘A Study of Zero-shot Adaptation with Commonsense Knowledge’, AKBC 2022.
- X Yi, **J Zhang**, W Li, X Wang, X Xie. ‘Clickbait Detection via Contrastive Variational Modelling of Text and Label’, IJCAI 2022.
- **J Zhang***, J Hu*, M Khayatkhoei, F Ilievski, M Sun. ‘Exploring perceptual limitation of multimodal large language models’, In submission.

EXPERIENCE

University of Southern California

Graduate Student Researcher

August 2022–Present

Los Angeles, USA

- High-fidelity data training, geometry understanding for multimodal LLMs (on-going) and AI-for-Science (to be started).
- Exploring and addressing multimodal LLMs’ perceptual limitations on small visual details.
- Utilizing knowledge graph to improve language models. Exploring the application in traffic understanding scenarios.

Amazon Alexa AI

Applied Scientist Intern

May 2023–August 2023

Belleveue, USA

- Personalization enhancement with large language models on both efficacy and efficiency by step-wise self-prompt optimization.

Tsinghua University

Undergraduate Student

December 2020–May 2021

Beijing, China

- Topic-controllable Chinese poetry generation with language models via pseudo-labeling from traditional unsupervised topic models (LDA).

PROGRAMMING

Python, Shell Scripting, \LaTeX

TEACHING

Teaching Assistant for USC DSCI 552

Summer 2024

Teaching Assistant for USC DSCI 552

Fall 2024