

Yixiao Song

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Education

Ph.D Student in Linguistics

(Advised by Prof. Rajesh Bhatt & Prof. Mohit Iyyer)

University of Massachusetts Amherst

3.93/4.0

2019-current

M.S. in Computer Science

University of Massachusetts Amherst

Incoming

M.A. in Germanic Linguistics

University of Konstanz

1.1/6.0 (excellent)

2016-2018

B.A. in German

University of Shanghai for Science and Technology

3.71/4.0

2011-2015

Publications

SLING: Sino Linguistic Evaluation of Large Language Models

EMNLP 2022

Yixiao Song, Kalpesh Krishna, Rajesh Bhatt, and Mohit Iyyer

- A benchmark with 38K minimal sentence pairs in Mandarin Chinese
- Tested 18 publicly available pretrained monolingual and multi-lingual language models
- Showed that the average accuracy for LMs is far below human performance (69.7% vs. 97.1%)
- Revealed the strengths and weaknesses of large language models

DEMETER: Diagnosing Evaluation Metrics for Translation

EMNLP 2022

Marzena Karpinska, Nishant Raj, Katherine Thai, Yixiao Song, Ankita Gupta, and Mohit Iyyer

- A diagnostic dataset with 31K English sentences (translated from 10 source languages)
- Evaluated the sensitivity of MT evaluation metrics to 35 different linguistic perturbations
- Found that learned metrics perform substantially better than string-based ones
- Revealed the strengths and weaknesses of learned metrics

Works and Presentations

Mandarin Chinese Alternative Questions are not Disjoined Polar Questions

Yixiao Song

2021

- First qualification paper supervised by Prof. Rajesh Bhatt and Prof. Seth Cable

Early Cue Effects of Chinese Relative Clause Comprehension in Pre-trained Language Model

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2021

- LING692C Cognitive Modeling, individual final project

A Comparative Study of German and Chinese Alternative Questions

Yixiao Song

2018

- Poster presentation at Semantics and Philosophy in Europe
- Talk at the 17th China International Conference on Contemporary Linguistics

Skills

- **Natural Languages:** Shanghai Wu, Mandarin Chinese, English, German
- **Programming:** Python (PyTorch, Hugging Face), R, Perl
- **Others:** L^AT_EX

Positions of Responsibility

- **Instructor** of LING201: How Language Works—Introduction to Linguistic Theory (R2)
- **Teaching Assistant** for courses at master level (University of Konstanz) and undergraduate level (UMass Amherst)
- **Proceeding Editor** of NELS50 and SULA11
- **Student Research Assistant** in Deutsche Forschungsgemeinschaft Project—Questions at the Interfaces (P3 Alternative Questions)

Internships

Friedrich Ebert Stiftung Shanghai Office

Translator, project assistant

April-July 2014

Cultural Institute of the Federal Republic of Germany (Goethe Institut)

Translator, interpreter, project assistant

August 2014 - February 2016