Zijie Wang

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Education

University of Arizona — Tucson, AZ, USA
Doctor of Philosophy, Computer Science — *Aug. 2022 – Expected May 2026*
- Advisor: Dr. Eduardo Blanco

Arizona State University (Transferred with advisor) — Tempe, AZ, USA
Doctor of Philosophy, Computer Science — *Jan. 2022 – Aug. 2022*
- Advisor: Dr. Eduardo Blanco

Arizona State University — Tempe, AZ, USA
Master of Science, Computer Science — *Aug. 2019 – Dec. 2021*
- Thesis: Examining Data Integration with Schema Changes Based on Cell-level Mapping Using Deep Learning Models

Beijing Information Science & Technology University — Beijing, China
Bachelor of Engineering, Computer Science and Technology — *Sept. 2015 – June 2019*

Research Interests

Natural language understanding, natural language generation, question answering, dialogue system, multilingual understanding, foundation models, artificial intelligence, and machine learning.

Publications

1. **Zijie Wang**, Farzana Rashid, and Eduardo Blanco. Interpreting answers to yes-no questions in dialogues from multiple domains. In Kevin Duh, Helena Gomez, and Steven Bethard, editors, *Findings of the Association for Computational Linguistics: **NAACL 2024***, pages 2111–2128, Mexico City, Mexico, June 2024. Association for Computational Linguistics

2. **Zijie Wang**, Md Hossain, Shivam Mathur, Terry Melo, Kadir Ozler, Keun Park, Jacob Quintero, MohammadHossein Rezaei, Shreya Shakya, Md Uddin, and Eduardo Blanco. Interpreting indirect answers to yes-no questions in multiple languages. In Houda Bouamor, Juan Pino, and Kalika Bali, editors, *Findings of the Association for Computational Linguistics: **EMNLP 2023***, pages 2210–2227, Singapore, December 2023. Association for Computational Linguistics

3. Lixi Zhou, Arindam Jain, **Zijie Wang**, Amitabh Das, Yingzhen Yang, and Jia Zou. Benchmark of dnn model search at deployment time. In *Proceedings of the 34th International Conference on Scientific and Statistical Database Management*, **SSDBM '22**, New York, NY, USA, 2022. Association for Computing Machinery

4. **Zijie Wang**, Lixi Zhou, and Jia Zou. Integration of fast-evolving data sources using a deep learning approach. In ***Software Foundations for Data Interoperability and Large Scale Graph Data Analytics***, pages 172–186. Springer, 2020

Experience

Research Assistant — Aug. 2022 – Present
University of Arizona, Supervisor: Dr. Eduardo Blanco — *Tucson, AZ, USA*

- Detecting and Answering Questions with False Assumptions.
  We propose a method based on evidence retrieval to verify questions with false assumptions. Our method yields better performance and interpretability compared to existing Large Language Models.
  In submission to a top conference

- Interpreting Indirect Answers to Yes-No Questions.
  We develop yes-no question datasets in multi-domains (three domains) and multi-languages (nine languages). We investigate a distant supervised method to interpret the indirect answers to yes-no questions.
  Two first-author papers accepted to NAACL 2024 Findings [1] and EMNLP 2023 Findings [2]
  Github Repo

Research Assistant — May 2020 - Dec. 2021
Arizona State University, Supervisor: Dr. Jia Zou — *Tempe, AZ, USA*

- Integration of Unmanaged Data Using Deep Learning.
  We propose an automatic data integration pipeline that integrates (semi-)structured data from heterogeneous sources. We train language models (Bi-LSTM and BERT) on datasets without schema changes and test with the updated dataset with schema changes.
  First-author paper published [4]
  Github Repo
- Searching DNN Model for Deployment.
  We develop a model search tool that facilitates model reuse when deploying with new datasets. We propose an asymmetric similarity-based metric to select the best-performing candidate model without retraining.
  One paper published [3]

Awards

UofA GPSC Travel Fund Award	Dec. 2023
Department of Cognitive Science Travel Award	Nov. 2023
Outstanding undergraduate student, Beijing City (5 in 300)	June 2019
Academic Excellent Scholarship (20 in 300)	Nov. 2016, 2017, 2018

Skills

Programming Language: Python, Java, Perl, Scala, SQL

Machine Learning & NLP Tools: PyTorch, TensorFlow, Keras; NLTK, spaCy.

Deep Learning Models: (Bi-)LSTM, (m)BERT, (XLM-)RoBERTa, BART, T5, GPT-X, Alpaca, LLaMa, etc.

Services

Conference review: ACL 2023, EMNLP 2023, AACL 2023, ACL Rolling Review

Journal review: ACM TALLIP (May 2022)