Ziqi Wang

ziqiw9@illinois.edu | Google scholar | Homepage | Linkedin | (217)751-2040

EDUCATION

University of Illinois Urbana-Champaign Urbana-Champaign, U.S.
Ph.D. Computer Science *Aug. 2021 – May. 2026*
- GPA: 4.00/4.00
- Member of BLENDER Lab
- Advisor: Prof. Heng Ji

Tsinghua University Beijing, China
B.E. Computer Science and Technology *Aug. 2016 – Jun. 2021*
- GPA: 3.83/4.00
- Member of Tsinghua Natural Language Processing Lab (THUNLP)
- Advisor: Prof. Zhiyuan Liu
- Member of Student Association of Science and Technology

PUBLICATIONS

(* denotes equal contribution)

2023
- **Ziqi Wang**, Yuexin Wu, Frederick Liu, Daogao Liu, Le Hou, Hongkun Yu, Jing Li, Heng Ji. "Augmentation with Projection: Towards an Effective and Efficient Data Augmentation Paradigm for Distillation" **ICLR 2023 (Poster)**
- Xiao Li*, **Ziqi Wang***, Bo Zhang, Fuchun Sun, Xiaolin Hu. "Recognizing Object by Components with Human Prior Knowledge Enhances Adversarial Robustness of Deep Neural Networks" **IEEE TPAMI**

2022
- Xinya Du, Zixuan Zhang, Sha Li, **Ziqi Wang**, et al. "RESIN-11: Schema-guided Event Prediction for 11 Newsworthy Scenarios" **NAACL-HLT 2022 (System Demonstrations)**
- Manling Li, Revanth Reddy, **Ziqi Wang**, Yi-Shyuan Chiang, Tuan M. Lai, Pengfei Yu, Zixuan Zhang, Heng Ji."COVID-19 Claim Radar: A Structured Claim Extraction and Tracking System" **ACL 2022 (System Demonstrations)**
- Lingjie Mei*, Jiayuan Mao*, **Ziqi Wang**, Chuang Gan, Joshua B. Tenenbaum. "FALCON: Fast Visual Concept Learning by Integrating Images, Linguistic descriptions, and Conceptual Relations." **ICLR 2022 (Poster)**

2021
- **Ziqi Wang***, Xiaozhi Wang*, Xu Han, Yankai Lin, Lei Hou, Zhiyuan Liu, Peng Li, Juanzi Li, Jie Zhou. "CLEVE: Contrastive Pre-training for Event Extraction." **ACL-IJCNLP 2021 (Long)**

2020
- **Ziqi Wang***, Yujia Qin*, Wenxuan Zhou, Jun Yan, Qinyuan Ye, Leonardo Neves, Zhiyuan Liu, Xiang Ren. "Learning from Explanations with Neural Execution Tree." **ICLR 2020 (Poster)**
- Xiaozhi Wang, **Ziqi Wang**, Xu Han, Wangyi Jiang, Rong Han, Zhiyuan Liu, Juanzi Li, Peng Li, Yankai Lin, Jie Zhou. "MAVEN: A Massive General Domain Event Detection Dataset." **EMNLP 2020 (Long)**
- Wenxuan Zhou, Hongtao Lin, Bill Yuchen Lin, **Ziqi Wang**, Junyi Du, Leonardo Neves, Xiang Ren. "NERO: A Neural Rule Grounding Framework for Label-Efficient Relation Extraction." **WWW 2020 (Best Paper Runner-Up, 2/1500+)**

2019
- Xiaozhi Wang*, **Ziqi Wang***, Xu Han, Zhiyuan Liu, Juanzi Li, Peng Li, Maosong Sun, Jie Zhou, Xiang Ren. "HMEAE: Hierarchical Modular Event Argument Extraction." **EMNLP-IJCNLP 2019 (Short, Oral)**

Work Experience

Google Bellevue, WA, U.S.
Student Researcher (Part-time), Host: Dr. Yuexin Wu *Aug. 2022 – Present*
Software Engineering Intern (Full-time), Host: Dr. Yuexin Wu *May. 2022 – Aug. 2022*
- We focus on data augmentation in distillation scenarios. We propose an efficient and effective data augmentation method for NLP distillation tasks. The results show that our method helps the distillation significantly improve performance across all GLUE tasks. The paper is under preparation.

Research Experience

University of Illinois Urbana-Champaign Urbana-Champaign, IL, U.S.
Research Assistant, Advisor: Prof. Heng Ji *Aug. 2021 – Present*
- Working on event extraction related topics.

Tsinghua University Beijing, China
Research Assistant, Advisor: Prof. Xiaolin Hu *Jan. 2021 – Jun. 2021*
- Undergraduate thesis: A knowledge driven method to defend adversarial attack on image classification.
- Use the topological relationships of components to verify the results of image segmentation. These verified results are used to do image recognition thereby enhancing performance of image recognition on adversarial examples.

Massachusetts Institute of Technology Cambridge, U.S.
Remote Research Assistant, Advisor: Dr. Chuang Gan *Mar. 2020 – Oct. 2020*
- Proposed a unified framework that can learn structured knowledge in natural language and apply the knowledge to the visual domain and down-stream task.
- Neuro-Symbolic method is applied to bridge connections between visual domain and language domain.

University of Southern California Los Angeles, U.S.
Research Assistant, Advisor: Prof. Xiang Ren *Jul. 2019 – Oct. 2019*
- Proposed a framework that use human explanations to do data augmentation, which can significantly improve downstream classifier's performance under low-resource setting. (ICLR 2020)
- Proposed a framework that use annotated surface pattern to do data augmentation, under such situation, people will only need a little extra effort and the performance of classifier on RE task will improve significantly (WWW 2020)

Tsinghua University Beijing, China
Research Assistant, Advisor: Prof. Zhiyuan Liu *Dec. 2018 – Jan. 2021*
- Proposed a model that use hierarchical modules to guide event argument extraction, which can improve performance and interpretability of neural networks. (EMNLP-IJCNLP 2019)
- Built an event detection dataset that is much more complicated and authentic than existed dataset. (EMNLP 2020)
- Incorporate contrastive learning and mutual information optimization into event extraction. (ACL-IJCNLP 2021)

Service

Reviewer: Pattern Recognition, NLPCC 2019
Review Assistant: AAAI 2020

Selected Course Projects

COVID-19 News App | *Java* Aug. 2020 – Sep. 2020
- Project repo
- An android app that can search/view/share COVID-19 news
- Statistical histogram of COVID-19, Encyclopedia and knowledge graphs of COVID-19
- Encyclopedia of pioneers in the fight against the COVID-19

GIF Search System Design | *Go, Vue.js* Sep. 2019 – Nov. 2019
- Project repo (Chinese, backend), Project repo (Chinese, frontend)
- Design a system that support searching GIF on web and recommending GIFs based on user action.
- Use Go to implement backend and Vue-Js to implement frontend.

Racing game design | *VHDL* Mar. 2019 – May 2019
- Design a 2D racing game on FPGA using VHDL.
- Using many hardwares like SRAM, ADXL345.

Book Management System Design | *C++, QT, SQLite* Apr. 2018 – May. 2018
- Design library-like library management software.
- Support online-reading, searching, borrowing, reservation queue, etc.

Selected Awards and Honors

- Magna Cum Laude, Tsinghua University, 2021

- Scholarship for Outstanding Academic Performance, Tsinghua University, 2017, 2018, 2019, 2020

- Scholarship for Outstanding Research Performance, Tsinghua University, 2020

- Scholarship for Outstanding Social Work Performance, Tsinghua University, 2017

- Scholarship for Comprehensive excellence, Tsinghua University, 2017

Technical Skills

Languages: Python, C/C++, Java, Vue.js, Go, Verilog, VHDL, R, LaTeX
DL Libraries: JAX, Pytorch, Tensorflow
Scientific Softwares: Matlab, Vivado