Ziqi **Wang**

PH.D. STUDENT AT UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN IN CS

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Education

University of Illinois Urbana-Champaign — *Champaign, IL*
PH.D. IN COMPUTER SCIENCE — *Aug. 2021 - Present*
- Member of Blender Lab under the supervision of Prof. Heng Ji

University of Illinois Urbana-Champaign — *Champaign, IL*
M.S. IN COMPUTER SCIENCE — *Aug. 2021 - Dec. 2023*
- Member of Blender Lab under the supervision of Prof. Heng Ji

Tsinghua University — *Beijing, China*
B.E. IN COMPUTER SCIENCE AND TECHNOLOGY — *Aug. 2016 - May. 2021*
- Member of THUNLP under the supervision of Prof. Zhiyuan Liu
- Magna Cum Laude

Selected Publications

* denotes equal contribution. See full publications in Google Scholar

- **Ziqi Wang**, Hanlin Zhang, Xiner Li, Kuan-Hao Huang, Chi Han, Shuiwang Ji, Sham M Kakade, Hao Peng, Heng Ji. *Eliminating Position Bias of Language Models: A Mechanistic Approach*. **Preprint 2024**
- Wei Xiong*, Hanze Dong*, Chenlu Ye*, **Ziqi Wang**, Han Zhong, Heng Ji, Nan Jiang, Tong Zhang. *Iterative Preference Learning from Human Feedback: Bridging Theory and Practice for RLHF under KL-Constraint*. **ICML 2024, Oral** at ICLR 2024 ME-FoMo Workshop
- **Ziqi Wang**, Le Hou, Tianjian Lu, Yuexin Wu, Yunxuan Li, Hongkun Yu, Heng Ji. *Enabling Language Models to Implicitly Learn Self-Improvement From Data*. **ICLR 2024**
- **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**
- 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 2023**
- **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**
- **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)**
- 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+)**
- 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

Meta — *Menlo Park, CA*
RESEARCH INTERN — *May. 2024 - Aug. 2024*
- Working on self-improvement of Large Vision-Language Models.

University of Illinois Urbana-Champaign — *Champaign, IL*
RESEARCH ASSISTANT — *Aug. 2021 - Present*
- Working on making AI models as independent research to push the knowledge discovery process of humanity. Advisor: Prof. Heng Ji.

Google — *Sunnyvale, CA*
SOFTWARE ENGINEERING INTERN — *May. 2023 - Aug. 2023*
- Working on large language model self-improvement with Dr. Le Hou and Dr. Yuexin Wu

Google — *Bellevue, WA and Remote*
SOFTWARE ENGINEERING INTERN AND STUDENT RESEARCHER — *May. 2022 - Dec. 2022*
- Working on data-efficient learning with Dr. Yuexin Wu and Dr. Le Hou

University of Southern California — *Los Angeles, CA*
RESEARCH ASSISTANT — *July. 2019 - Sep. 2019*
- Working on neuro-symbolic learning under the supervision of Prof. Xiang Ren

Tsinghua University

RESEARCH ASSISTANT

- Working on event extraction under the supervision of Prof. Zhiyuan Liu
- Working on vision robustness under the supervision of Prof. Xiaolin Hu
- Working on dialogue understanding/generation under the supervision of Prof. Minlie Huang

Talks

Objective, Inc.   *2023*

- Introduce model self-improvement work.

Honors & Awards

2021	Magna Cum Laude	*Tsinghua University*
2020	Scholarship for Outstanding Research Performance	*Tsinghua University*
20(17-20)	Scholarship for Outstanding Academic Performance	*Tsinghua University*
2017	Scholarship for Outstanding Social Work Performance	*Tsinghua University*
2017	Scholarship for Comprehensive Excellence	*Tsinghua University*

Service

Reviewer: ICLR, NeurIPS, ICML, ACL, EMNLP, NAACL, COLM, Pattern Recognition

Projects

Only open-sourced projects are presented

Covid-19 Claim Radar   *Vue.js, Go*

ACL 2023 SYSTEM DEMONSTRATION   *2022*

- An interactive website that shows different claims related to Covid-19 with structured information (e.g., entity, event, argument, sources)
- Url: `https://blenderdemo.com`

Covid-19 News App   *Java, Android*

COURSE PROJECT   *2020*

- Project repo: `https://github.com/wzq016/COVID-NewsApp`
- 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

MIPS32 CPU   *Verilog*

COURSE PROJECT   *2019*

- Project repo (Chinese): `https://github.com/wzq016/MIPS-CPUer`
- Supports around 30 kinds of basic and interruptive MIPS32 instructions.
- Supports several peripherals including DVI video output and flash storage.
- Built a fixed-point numerical system and a three-body problem simulator/visualizer in MIPS assembly.

GIF Search System Design   *Vue.js, Go*

COURSE PROJECT   *2019*

- Project repo (Chinese, backend): `https://github.com/wzq016/GIF-search-system-backend`
- Project repo (Chinese, frontend): `https://github.com/wzq016/GIF-search-system-frontend`
- Design a system that supports searching GIFs on the web and recommending GIFs based on user action.