# Ziru "Ron" Chen

 $\begin{array}{c} Curriculum\ Vitae \\ {\rm Last\ Updated:\ October\ 4,\ 2024} \end{array}$ 

Email: chen.8336@osu.edu

Website: https://ronch99.github.io/

Twitter: @RonZiruChen

#### Interests

My research interests lie in *natural language processing* and *machine learning*. I am particularly interested in developing **conversational AI agents** that can accomplish real-world tasks by processing heterogeneous data, planning and reasoning in programs, and collaborating with users.

#### **EDUCATION**

The Ohio State University, Columbus, OH
Ph.D. in Computer Science and Engineering

Aug 2022 – May 2027

GPA: 4.0 / 4.0

The Ohio State University, Columbus, OH

B.S. in Computer and Information Science, Math Minor

GPA: 3.97 / 4.0

Summa Cum Laude

# EXPERIENCES

## Research Assistant, The Ohio State University

Dec 2020 – Present

Advisor: Dr. Huan Sun

- Language Agents for Scientific Tasks (Ongoing)
- Planning and Reasoning with Large Language Models (ACL'24)
- Interactive Text-to-SQL Semantic Parsing (ACL'23, EMNLP'23, EMNLP Findings'23)
- User-Centered Task-Oriented Dialogue System (Alexa Prize'22, 3rd Place Honor)

Visiting Student Research Intern, Westlake University

May 2021 – Jul 2021

Advisor: Dr. Zhenzhong Lan

Teaching Assistant, The Ohio State University

Aug 2019 – May 2022

#### Honors

# University Fellowship, The Ohio State University 3rd Place (Student Co-lead), 1st Alexa Prize Taskbot Challenge, Amazon Undergraduate Research Award, The Ohio State University 2022 CIS Undergrad Scholarship, The Ohio State University Dean's List, The Ohio State University (6 semesters) 2022–2023, 2026–2027 2022 2022 2022 2023 2026–2027 2022 2022 2022 2022 2022 2023 2022 2022 2022 2022 2022 2022 2022 2022 2022 2022 2022 2022 2022

#### **PUBLICATIONS**

[11] ScienceAgentBench: Toward Rigorous Assessment of Language Agents for Data-Driven Scientific Discovery

**Ziru Chen**, Shijie Chen, Yuting Ning, Qianheng Zhang, Boshi Wang, Botao Yu, Yifei Li, Zeyi Liao, Chen Wei, Zitong Lu, Vishal Dey, Mingyi Xue, Frazier N. Baker, Benjamin Burns, Daniel Adu-Ampratwum, Xuhui Huang, Xia Ning, Song Gao, Yu Su, Huan Sun In submission (Arxiv 2024, Long)

[10] When is Tree Search Useful for LLM Planning? It Depends on the Discriminator **Ziru Chen**, Michael White, Raymond Mooney, Ali Payani, Yu Su, Huan Sun The 62nd Annual Meeting of the Association for Computational Linguistics (ACL 2024, Long)

[9] eCeLLM: Generalizing Large Language Models for E-commerce from Large-scale, High-quality Instruction Data

Bo Peng\*, Xinyi Ling\*, **Ziru Chen**, Huan Sun, Xia Ning (\* equal contribution) Proceedings of the 41st International Conference on Machine Learning (ICML 2024, Long) **Our ECInstruct dataset is recommended at Amazon KDD Cup 2024.** 

[8] Automatic Evaluation of Attribution by Large Language Models
Xiang Yue, Boshi Wang, **Ziru Chen**, Kai Zhang, Yu Su, Huan Sun
Findings of the Association for Computational Linguistics: EMNLP 2023 (Findings 2023, Long)
Our dataset and model has more than 3.6K and 2.5K downloads on Huggingface.

[7] Error Detection for Text-to-SQL Semantic Parsing

Shijie Chen, **Ziru Chen**, Huan Sun, Yu Su

Findings of the Association for Computational Linguistics: EMNLP 2023 (Findings 2023, Long)

[6] Exploring Chain-of-Thought Style Prompting for Text-to-SQL

Chang-Yu Tai\*, **Ziru Chen**\*, Tianshu Zhang, Xiang Deng, Huan Sun (\* equal contribution) The 2023 Conference on Empirical Methods in Natural Language Processing (EMNLP 2023, Long)

[5] Roll Up Your Sleeves: Working with a Collaborative and Engaging Task-Oriented Dialogue System Lingbo Mo, Shijie Chen, Ziru Chen, Xiang Deng, Ashley Lewis, Sunit Singh, Samuel Stevens, Chang-Yu Tai, Zhen Wang, Xiang Yue, Tianshu Zhang, Yu Su, Huan Sun

The 24th Meeting of the Special Interest Group on Discourse and Dialogue (SIGDIAL 2023, Demo)

[4] Text-to-SQL Error Correction with Language Models of Code

**Ziru Chen**, Shijie Chen, Michael White, Raymond Mooney, Ali Payani, Jayanth Srinivasa, Yu Su, Huan Sun

The 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023, Short)

[3] SalsaBot: Towards a Robust and Generalizable Embodied Agent

Chan Hee Song\*, Jiaman Wu\*, Ju-Seung Byun, Zexin Xu, Vardaan Pahuja, Goonmeet Bajaj, Samuel Stevens, **Ziru Chen**, Yu Su (\* equal contribution)

The 1st Proceedings of Alexa Prize Simbot Challenge (Alexa Prize 2023, Long)

The Embodied AI 2023 Workshop (Embodied AI 2023, Short)

[2] Error Detection for Interactive Text-to-SQL Semantic Parsing

Shijie Chen, **Ziru Chen**, Huan Sun, Yu Su

The 2nd Workshop on Interactive Learning for Natural Language Processing (InterNLP 2022, Short)

[1] Bootstrapping a User-Centered Task-Oriented Dialogue System

Shijie Chen\*, **Ziru Chen**\*, Xiang Deng, Ashley Lewis, Lingbo Mo, Samuel Stevens, Zhen Wang,

Xiang Yue, Tianshu Zhang, Yu Su, Huan Sun (\* equal contribution) The 1st Proceedings of Alexa Prize Taskbot Challenge (Alexa Prize 2022, Long)

Our TacoBot is the third-place winner and deployed in Amazon Alexa.

TEACHING

CSE 5525 Speech and Language Processing, Undergraduate & Graduate Level Teaching Assistant, The Ohio State University (Autumn 2021; Spring 2022)

CSE 2321 Foundations I: Discrete Structures, Undergraduate Level

Teaching Assistant, The Ohio State University (Autumn 2019; Spring, Autumn 2020)

SERVICE

**Program Committee**: AAAI (2023, 2024, 2025), ACL Rolling Review (2024), ICLR (2025)

Secondary Reviewer: EMNLP (2023), TACL (2024)

SKILLS

### **Programming**

Python, C, Java, MATLAB, HTML and CSS, Ruby, JavaScript

Languages

Chinese (Native), English (Fluent), Japanese (Proficient; JLPT N2), Korean (Elementary)

References

# Huan Sun, Ph.D.

Associate Professor and College of Engineering Innovation Scholar

Department of Computer Science and Engineering

The Ohio State University **Email**: sun.397@osu.edu

Website: http://web.cse.ohio-state.edu/~sun.397/

Yu Su, Ph.D.

Distinguished Assistant Professor of Inclusive Excellence

Department of Computer Science and Engineering

The Ohio State University / Microsoft Semantic Machines

Email: su.809@osu.edu

Website: https://ysu1989.github.io/

Michael White, Ph.D.

Professor and Vice Chair

Department of Linguistics

The Ohio State University

Email: white.1240@osu.edu

Website: https://u.osu.edu/white.1240/