

# Ziru “Ron” Chen

Curriculum Vitae

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## 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 Aug 2022 – May 2027  
Ph.D. in Computer Science and Engineering **GPA: 3.92 / 4.0**

**The Ohio State University**, Columbus, OH Aug 2018 – May 2022  
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*

- Enhancing Inference-Time Computation of Language Models (**ACL’24**)
- Language Agents for Data-Driven Scientific Discovery (**ICLR’25**)
- 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**)

**Teaching Assistant**, The Ohio State University Aug 2019 – May 2022

## HONORS

**University Fellowship**, The Ohio State University 2022–2023, 2026–2027  
**3rd Place** (Student Co-lead), 1st Alexa Prize Taskbot Challenge, Amazon 2022  
**Undergraduate Research Award**, The Ohio State University 2022  
**CIS Undergrad Scholarship**, The Ohio State University 2021  
**Dean’s List**, The Ohio State University (6 semesters) 2018–2021

## PUBLICATIONS

[12] *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

The Thirteenth International Conference on Learning Representations (ICLR 2025, Long)

**ScienceAgentBench is featured in OpenHands and has 1K+ downloads on Huggingface.**

[11] *Tooling or Not Tooling? The Impact of Tools on Language Agents for Chemistry Problem Solving*  
Botao Yu, Frazier N. Baker, **Ziru Chen**, Garrett Herb, Boyu Gou, Daniel Adu-Ampratwum, Xia Ning, Huan Sun

Findings of the Association for Computational Linguistics: NAACL 2025 (Findings 2025, Short)

[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)

**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 models have 4K+ 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 (EmbodiedAI 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 for one year.**

#### 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

**Outstanding Reviewer:** EMNLP 2024 (ACL Rolling Review 06/2024)  
**Program Committee:** AAAI (2023; 2024; 2025), ACL Rolling Review (02, 06, 10/2024; 02/2025), ICLR (2025)  
**Secondary Reviewer:** EMNLP (2023), TACL (2024)

#### SKILLS

**Programming**  
*Python, Java, C, 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:** <https://u.osu.edu/ihudas/people/>

**Yu Su, Ph.D.**  
Distinguished Assistant Professor of Inclusive Excellence  
Department of Computer Science and Engineering, The Ohio State University  
**Email:** su.809@osu.edu  
**Website:** <https://ysu1989.github.io/>