

Ziru “Ron” Chen

Curriculum Vitae

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INTERESTS

I am interested in *conversational AI agents*, *natural language processing* and *machine learning*. My recent research focuses on **(1) enhancing test-time computation of language models** to reason and plan for complex problem-solving and **(2) developing user-centered language agents** that can assist with or automate real-world tasks, such as code generation and scientific R&D.

EDUCATION

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

Aug 2022 – May 2027
GPA: 3.92 / 4.0

The Ohio State University, Columbus, OH
B.S. in Computer and Information Science, Math Minor
Summa Cum Laude

Aug 2018 – May 2022
GPA: 3.97 / 4.0

EXPERIENCES

Research Assistant, The Ohio State University
Advisor: Dr. *Huan Sun*

Dec 2020 – Present

- Test-Time Computation of Language Models (**ACL’24**)
- Language Agents for Scientific Research and Development (**ICLR’25**, **NAACL Findings’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**)

Research Intern, Microsoft GenAI
Mentor: Dr. *Yujia Xie*

May 2025 – Aug 2025

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)

Covered by Nature News. 3.7K+ downloads on Huggingface by April 23, 2025.

[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)

AttrScore dataset has 5K+ downloads on Huggingface by April 23, 2025.

[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 (2024, 2025), ICLR (2025), COLM (2025), NeurIPS (2025)

Workshop Reviewer: Reasoning and Planning for LLMs @ ICLR2025

Secondary Reviewer: TACL (2024)

SKILLS

Programming

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

Languages

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