## Ziru "Ron" Chen

Curriculum Vitae

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

Twitter: @RonZiruChen

Natural Language Processing, Conversational AI, Computational Social Science Interests

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

> B.S. Computer and Information Science, Math Minor GPA: 3.976 / 4.0

Expected: Summa Cum Laude

EXPERIENCES Undergrad Research Assistant, The Ohio State University Dec 2020 – Present

– Advisor: Dr. Huan Sun

Visiting Student Research Intern, Westlake University May - Jul 2021

- Advisor: Dr. Zhenzhong Lan

Student Instructional Assistant, The Ohio State University

Aug 2019 - Dec 2020; Aug 2021 - Present

Honors CIS Undergrad Scholarship, The Ohio State University 2021

> Dean's List, The Ohio State University (5 semesters) 2018 - Present

Research Taco: A Task-Oriented Collaborative Dialogue System

Jun 2021 – Present Advisor: Dr. Huan Sun, Dr. Yu Su

At the Amazon Alexa Prize TaskBot Challenge, we propose a novel TaskBot, Taco, that aims to support cooking and DIY tasks via engaging multi-modal interaction. As one of the team leads, I actively design and implement various components in our system. Meanwhile, I analyze recorded user interactions regularly to explore new research ideas in task-oriented dialogue system. Taco is interacting with real users and being consistently improved in the competition.

Towards Human-like Dialogue Systems for Mental Health Counseling

Advisor: Dr. Zhenzhong Lan May - Jul 2021

Since there exists a growing demand for mental health counseling, we aim to build Conversational AIs that may help counselors with their jobs. At Westlake, I participated in various aspects of the project, such as training a large-scale Transformer-XL model, developing a Chinese Poly-Encoder, and exploring non-autoregressive text generation

and conversation summarization.

Cross-Domain Adaptation for Text-to-SQL Semantic Parsers

Advisor: Dr. Huan Sun Dec 2020 – Present

Recent advances in Text-to-SQL have achieved high accuracy on different benchmarks. However, most exhibit a huge performance drop when applied across unseen domains. I experimented with existing methods to adapt a SOTA semantic parser to new domains and compared the methods under fair experimental settings. Based on my preliminary studies, I propose to build a new interactive semantic parsing framework to efficiently

adapt a parser to new domains.

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 Secretary: CSE/CIS Peer Mentors (Aug 2020 – Jul 2021)

Mentor: CSE/CIS Peer Mentors (Aug 2019 – Present)

Panelist: OSU China Gateway Pre-Departure Orientation (Jun 2021)

Skills Programming

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

Toolkits & Packages

Numpy, Pytorch, Tensorflow, Pandas, Matplotlib, Sklearn, NLTK, Javaplex, Ripser

Languages

Chinese (Native), English (Fluent), Japanese (Proficient; **JLPT N2**), Korean (Elemen-

tary)

REFERENCES Huan Sun, Ph.D.

Assistant Professor, Department of Computer Science and Engineering

The Ohio State University

NSF CAREER Award (2020), Google Faculty Research Award (2020)

Email: sun.397@osu.edu

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

Yu Su, Ph.D.

Assistant Professor, Department of Computer Science and Engineering

The Ohio State University / Microsoft Semantic Machines

NSF ICICLE Institute AI Team Lead

Email: su.809@osu.edu

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

Zhenzhong Lan, Ph.D.

Assistant Professor, School of Engineering

Westlake University

First Author of ALBERT (ICLR 2020) Email: lanzhenzhong@westlake.edu.cn

Website: https://en.westlake.edu.cn/academics/School\_of\_Engineering/

Research/iisec/Our\_Faculty/201912/t20191211\_2541.shtml