

Ziru “Ron” Chen

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INTERESTS	Natural Language Processing, Computational Social Science, Machine Learning	
EDUCATION	The Ohio State University , Columbus, OH B.S. Computer and Information Science , Mathematics Minor	Expected: May 2022 GPA 3.973 / 4.0
PROFESSIONAL EXPERIENCE	Undergraduate Research Assistant , The Ohio State University - Advisor: Dr. <i>Huan Sun</i> - Research Topics: Text-to-SQL, Natural Language Interface, Conversational AI	Dec 2020 – Present
	Undergraduate Research Assistant , The Ohio State University - Advisor: Dr. <i>Zhenzhong Lan</i> - Research Topic: Open-Domain Multi-turn Dialogue System	May 2021 – Present
	Student Instructional Assistant , The Ohio State University - <i>CSE 2321 Foundations I: Discrete Structures</i> (AU19; SP20; AU20)	Aug 2019 – Dec 2020
HONORS	CSE Departmental Scholarship , The Ohio State University Dean’s List , College of Arts and Sciences (5 semesters)	2021 2018 – Present
RESEARCH EXPERIENCE	Towards Human-like Dialogue Systems for Mental Health Counseling - Advisor: Dr. <i>Zhenzhong Lan</i> Concerning the growing demand for mental health counseling, we aim to build a human-like open-domain dialogue system that may show empathy and support people with warm words. At Westlake, I am developing an end-to-end Transformer-XL model that captures long dialogue histories to generate more contextualized response.	May 2021 – Present
	Cross-Database Generalization for Text-to-SQL - Advisor: Dr. <i>Huan Sun</i> 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 comprehensively surveyed practical methods to fine-tune and adapt our semantic parser to new domains, compared them with fair experimental settings, and evaluated them with several metrics. We hope to pave the way for this line of research with our work.	Dec 2020 – Present
	Counts and Measurements in Scientific Texts - Course Project, CSE 5525 Speech and Language Processing Quantities are critical for NLP models to understand scientific and medical texts. In this project, we investigated the dataset released at SemEval 2021 Task 8. I conducted data analysis for frequent patterns and implement a neural model with BERT for proposed NER tasks.	Sep – Dec 2020
QUALIFICATIONS & SKILLS	Professional Skills: - Programming Languages: <i>Python, C, Java, MATLAB, Ruby, JavaScript</i> - ML / DL Toolkits: <i>Numpy, Pytorch, Tensorflow, Pandas, Matplotlib, Sklearn, NLTK</i> - Other Computer Science Skills: <i>Linux, Git, HTML and CSS, LaTeX, Ruby on Rails</i> Languages: - <i>Chinese (Native), English (Proficient), Japanese (Moderate; JLPT N2), Korean (Elementary)</i>	
STUDENT ACTIVITIES	Secretary , CSE/CIS Peer Mentors - Manage an organization of 30 people and motivate new peer mentors - Design and maintain organization website and mentor profiles - Volunteer to assist transitions of first-semester students in person or online	Aug 2019 – Present

Last Updated: 05/24/2021