Ziru "Ron" Chen

Email: chen.8336@osu.edu | **Twitter**: @RonZiruChen | **Website**: ronch99.github.io

INTERESTS Natural Language Processing, Conversational AI, Computational Social Science

EDUCATION

The Ohio State University, Columbus, OH — Expected: May 2022
B.S. Computer and Information Science, Mathematics Minor — **GPA 3.973 / 4.0**

PROFESSIONAL EXPERIENCE

Undergraduate Research Assistant, The Ohio State University — Dec 2020 – Present
- Advisor: Dr. *Huan Sun*
- Research Topics: Text-to-SQL, Natural Language Interface, Conversational AI

Visiting Research Intern, Westlake University — May 2021 – Present
- Advisor: Dr. *Zhenzhong Lan*
- Research Topic: Open-Domain Multi-turn Dialogue System for Social Good

Student Instructional Assistant, The Ohio State University — Aug 2019 – Dec 2020
- *CSE 2321 Foundations I: Discrete Structures* (AU19; SP20; AU20)

HONORS

CIS Undergrad Scholarship, The Ohio State University — 2021
Dean's List, College of Arts and Sciences (5 semesters) — 2018 – Present

RESEARCH EXPERIENCE

Towards Human-like Dialogue Systems for Mental Health Counseling — May 2021 – Present
- Advisor: Dr. *Zhenzhong Lan*

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.

Cross-Database Generalization for Text-to-SQL — Dec 2020 – Present
- Advisor: Dr. *Huan Sun*

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.

Counts and Measurements in Scientific Texts — Sep – Dec 2020
- 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.

QUALIFICATIONS & SKILLS

Professional Skills:
- Programming Languages: *Python, C, Java, MATLAB, Ruby, JavaScript*
- **ML / DL Toolkits**: ***Numpy***, ***Pytorch***, *Tensorflow, Pandas, Matplotlib, Sklearn, NLTK*
- Other Computer Science Skills: *Linux, Git, HTML and CSS, LaTeX, Ruby on Rails*

Languages:
- *Chinese (Native), English (Proficient), Japanese (Moderate;* ***JLPT N2****), Korean (Elementary)*

STUDENT ACTIVITIES

Secretary, CSE/CIS Peer Mentors — Aug 2019 – Present
- 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

Last Updated: 05/24/2021