# Hao Yan

Fairfax, VA | yanhao821@gmail.com | (571) 354-3431

## RESEARCH INTERESTS

Natural Language Processing, Large Language Models, Human-AI Interaction, AI Safety

## EDUCATION

**George Mason University, Fairfax, USA (GPA 3.84 / 4.0)**
*Ph.D. (*Advised by Dr. Ziyu Yao*), Computer Science, 2022 - now*
*Master of Science, Computer Science, 2018 - 2020*

**Fujian Normal University, China**
*Bachelor of Engineering, Electronic and Information Engineering, 2013 - 2017*

## RESEARCHS/PUBLICATIONS

**IntelliExplain: Enhancing Conversational Code Generation for Non-Professional Programmers**
*arXiv preprint, 2024*
- Conducted a systematic examination of user behavior in code generation with chat-based LLMs and identified their limitations among non-professional programmers.
- Developed a novel conversational code generation framework utilizing chat-based LLMs.
- Proposed *enhanced code explanations* and a *structured interaction paradigm* for both improved code understanding and effective feedback loop.

**Learning to Simulate Natural Language Feedback for Interactive Semantic Parsing**
*ACL 2023*
- Investigated the use of simulated natural language feedback to train language models (LMs) for error correction in interactive semantic parsing.
- Achieved comparable error correction performance using simulated feedback compared to fully human-annotated data.
- Demonstrated effectiveness of our method in low-data scenarios requiring 80% less annotated data.

## SERVICES/PROFESSIONAL ACTIVITIES

**Invited Talk at EPIC SPICE Intern Program, GMU**
- Presented on LLM Agent at the EPIC SPICE Intern Program, George Mason University, 2024.

**Student Volunteer**
- The 61st Annual Meeting of the Association for Computational Linguistics (ACL), 2023.

**Reviewers**
- ICLR'25, IEEECINLPSoMe'25, NeurIPS'23 (secondary)

## WORK EXPERIENCE

**Graduate Teaching Assistant**
  *Department of Computer Science, George Mason University, 2020 – 2022, 2023 – now*

**Graduate Research Assistant**
  *Department of Computer Science, George Mason University, 2022 – 2023*

**Front-end Developer**
*Individual, February 2021 – August 2021*
- Participate in the development and maintenance of a web-based online grocery application built by Angular, Firebase, Typescript, and Ionic.

## HONORS / AWARDS

CAHMP 2024 Summer GRA Award, GMU, 2024
Distinguished GTA Award, Department of CS, GMU, 2022
Graduate Students Poster Award (Honorable Mention), GMU, 2022
Outstanding GTA Award, Department of CS, GMU, 2020, 2021