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# The University of Texas at Dallas 2024 - present

- Ph.D. in Computer Science

Dallas, TX, USA

- Advisor: Zhiyu Zoey Chen Virginia Tech (transferred out)

2023 - 2024

- Ph.D. in Computer Science

Blacksburg, VA, USA

Soochow University

2020 - 2023

- M.S. in Computer Science

Suzhou, Jiangsu, China

Advisors: Wenliang Chen, Xiabing ZhouOutstanding Graduate; Outstanding Thesis

## Nanjing University of Posts and Telecommunications

2016 - 2020

- B.Eng. in Computer Science

Nanjing, Jiangsu, China

- GPA: 3.96 / 5 (Top 3% in the Department)

## Research Summary

My current research focuses on enhancing (large) language models for social good, with a particular emphasis on health domains [1, 2, 4]. I am actively working on post-training techniques (reinforcement learning from human feedback) [1, 6], and synthetic data generation [1, 7] to equip models with complex and reliable capabilities, such as instruction following and personalization. I have experience in evaluating and improving language models, particularly in their dialogue abilities, such as keeping self-consistent [5] and safe [6] in conversation or understanding speaker's core semantic meaning [7] and emotion [8]. Additionally, I have a strong interest in vision-language models, retrieval-augmented methods, and language agents. Totally, I have 9 papers along these directions including 7 first-authored papers and 7 peer-reviewed publications in top-tier Al conferences such as ACL, NAACL, NeurlPS, etc.

## Research Experiences

### Human Language Technology Research Institute at UTD

Sep. 2024 - present Dallas, TX

Student Researcher (Advisor: Zhiyu Zoey Chen)
Topics: Preference Learning, Personalization

Tencent Al Lab

Research Intern (Mentors: Haitao Mi, Linfeng Song)

May. 2024 - Jul. 2024 Seattle, WA

Topics: Reinforcement Learning from Human Feedback

**Tencent Al Lab**Dec. 2021 - Dec. 2022

Research Intern (Mentor: Lifeng Jin)

Shenzhen, China

Topics: Dialogue Understanding, Semi-supervised Learning

Institute of Human Language Technology at Soochow University Sep. 2020 - Jul. 2021 Student Researcher (Advisors: Wenliang Chen, Xiabing Zhou) Suzhou, China

Topics: Dialogue State Tracking, Conversational Emotion Recognition

#### **Papers**

(\*denotes equal contribution)

Preference Learning Unlocks LLMs' Psycho-Counseling Skills (Preprint)
 Mian Zhang, Shaun M. Eack, Zhiyu Chen.

2. CBT-Bench: Evaluating Large Language Models on Assisting Cognitive Behavior Therapy (NAACL 2025)

- **Mian Zhang**\*, Xianjun Yang\*, Xinlu Zhang, Travis Labrum, Jamie C. Chiu, Shaun M. Eack, Fei Fang, William Yang Wang, Zhiyu Chen.
- 3. IDEA: Enhancing the Rule Learning Ability of Large Language Model Agent through Induction, Deduction, and Abduction (NeurlPS 2024 Workshop on Open-World Agents, ACL under submission)
  - Kaiyu He, Mian Zhang, Shuo Yan, Peilin Wu, Zhiyu Zoey Chen.
- 4. Large Language Models for Disease Diagnosis: A Scoping Review (*Preprint*)
  Shuang Zhou\*, Zidu Xu\*, **Mian Zhang**\*, Chunpu Xu\*, Yawen Guo, Zaifu Zhan, Sirui Ding,
  Jiashuo Wang, Kaishuai Xu, Yi Fang, Liqiao Xia, Jeremy Yeung, Daochen Zha, Mingquan Lin,
  Rui Zhang.
- 5. Inconsistent dialogue responses and how to recover from them (*EACL 2024*) **Mian Zhang**, Lifeng Jin, Linfeng Song, Haitao Mi, Dong Yu.
- 6. SafeConv: Explaining and Correcting Conversational Unsafe Bahavior (*ACL 2023 Oral*) **Mian Zhang**, Lifeng Jin, Linfeng Song, Haitao Mi, Wenliang Chen, Dong Yu.
- 7. Friend-training: Learning from Different but Related Tasks (*EACL 2023*) Mian Zhang, Lifeng Jin, Linfeng Song, Haitao Mi, Xiabing Zhou, Dong Yu.
- 8. Emotion Recognition in Conversation from Variable-Length Context (*ICASSP 2023*) **Mian Zhang**, Xiabing Zhou, Wenliang Chen, Min Zhang.
- 9. A Pairing Enhancement Approach for Aspect Sentiment Triplet Extraction (KSEM 2023) Fang Yang, Mian Zhang, Gongzhen Hu, Xiabing Zhou.

Skills

Programming Language: Python, C/C++, Shell, Language: Python,

Machine Learning Framework: PyTorch, NumPy, Transformers, Scikit-learn

Tool & Software: Vim, Git, pdb, Matplotlib, Pandas

Natural Language: Mandarin (native), English (advanced)

## Selected Awards

Outstanding Master's Thesis	2024
Outstanding Graduate Award at Soochow University	2023
First-class Scholarship at Soochow University	2020 - 2021
Principal's Award	2019
CUMCM National First Prize (top 1%)	2018
First-class Scholarship at NJUPT	2017 - 2019