Hongli Zhan

Ph.D. Student at UT Austin

Department of Linguistics
The University of Texas at Austin

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'Personal Website

G Github

Education

2021 - Ph.D. in Computational Linguistics (Minor in Computer Science).

Department of Linguistics, The University of Texas at Austin, Austin, TX

- Advisor: Prof. Junyi Jessy Li
- Qualifying Paper Readers: Prof. Junyi Jessy Li, Prof. Desmond C. Ong, Prof. David I. Beaver
- 2017 2021 B.A. in English Linguistics (Second Major in Law).

School of Foreign Languages, Shanghai Jiao Tong University, Shanghai, China

Industry Experience

Summer 2024 (Incoming) Inclusive Language Technologies Intern, IBM Research, Yorktown Heights, NY.

• Manager: Dr. Raya Horesh

Research Interests

The ambition of my Ph.D. research is to **build emotionally intelligent AI systems in a broader social context**. Specifically, I focus on Affective Computing, which tries to build NLP models with a deeper emotional understanding.

- ⇒ **EMNLP 2022 & ACL 2023:** We tapped into the questions of "How do people feel about and make sense of what took place in their lives during major social events?", and proposed *Emotion Detection and Trigger Summarization*, a new task to detect perceived emotions in text automatically and abstractively summarize triggers of each emotion.
- ⇒ **EMNLP 2023 Findings:** Grounded in Psychology theories, my work further explored the capability of LLMs on complex emotional understanding tasks: are they able to assess and explain *cognitive appraisals* (how individuals subjectively interpret and evaluate a situation) that lead to diverse emotional experiences.

Refereed Publications

* denotes equal contributions

EMNLP 2023 **Hongli Zhan**, Desmond C. Ong, and Junyi Jessy Li. Evaluating subjective cognitive appraisals (Findings) of emotions from large language models. In Houda Bouamor, Juan Pino, and Kalika Bali, editors, *Findings of the Association for Computational Linguistics: EMNLP 2023*, pages 14418–14446,

Singapore, December 2023. Association for Computational Linguistics.

ACL 2023 Tiberiu Sosea*, **Hongli Zhan***, Junyi Jessy Li, and Cornelia Caragea. Unsupervised extractive summarization of emotion triggers. In Anna Rogers, Jordan Boyd-Graber, and Naoaki Okazaki, editors, *Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics* (Volume 1: Long Papers), pages 9550–9569, Toronto, Canada, July 2023. Association for Computational Linguistics.

EMNLP 2022 **Hongli Zhan***, Tiberiu Sosea*, Cornelia Caragea, and Junyi Jessy Li. Why do you feel this way? summarizing triggers of emotions in social media posts. In Yoav Goldberg, Zornitsa Kozareva, and Yue Zhang, editors, *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing*, pages 9436–9453, Abu Dhabi, United Arab Emirates, December 2022. Association for Computational Linguistics.

Professional Service & Research Appointments

Reviewer, EMNLP 2023, ICRA 2024.

Student Volunteer, ACL 2023.

Spring 2023 - Organizer, Natural Language Learning Reading Group, UT Austin.

Fall 2021 - Graduate Research Assistant, Supervised by Prof. Junyi Jessy Li, UT Austin.

Teaching Experience

The University of Texas at Austin

LIN 371 Machine Learning Text Analysis, Graduate Teaching Assistant, Spring 2024.

• Instructor: Prof. Junyi Jessy Li

LIN 306 Intro to the Study of Language, Guest Lecturer, Spring 2023.

• Instructor: Seyeon Park

LIN 373N Machine Learning Toolbox for Text Analysis, Guest Lecturer, Fall 2022.

• Instructor: Prof. Junyi Jessy Li

LIN 373N Machine Learning Toolbox for Text Analysis, Graduate Teaching Assistant, Fall 2022.

• Instructor: Prof. Junyi Jessy Li

LIN 350 Computational Semantics, Graduate Teaching Assistant, Fall 2021.

• Instructor: Prof. Katrin Erk

Mentoring

Fall 2023 - Allen Zheng, B.S. in Computer Science (Turing Honors) & Mathematics, UT Austin.

Fellowships & Awards

- Fall 2023 Professional Development Award for Attending EMNLP 2023, UT Austin, 1,160 USD.
- Fall 2022 Professional Development Award for Attending EMNLP 2022, UT Austin, 1,200 USD.
- Spring 2022 COLA Supplemental Graduate School Fellowship, UT Austin, 5,000 USD.
 - 2021 Outstanding Graduate, Shanghai Jiao Tong University.
 - 2021 Outstanding Undergraduate Thesis Award, Shanghai Jiao Tong University.

Conference Presentations

- ACL 2023 Unsupervised Extractive Summarization of Emotion Triggers, *Toronto, Canada*, presented in-person on July 11th, 2023.
- EMNLP 2022 Why Do You Feel This Way? Summarizing Triggers of Emotions in Social Media Posts, Abu Dhabi, United Arab Emirates, presented in-person on Dec 9th, 2022.

Invited Talks

- Oct 11, 2023 Can I Cheer You Up? Psychologically-Grounded Emotional Support: Leveraging LLMs for Targeted Re-Appraisals, Computational Affective and Social Cognition Lab (CASCogLab), Department of Psychology, The University of Texas at Austin, Austin, TX.
- Feb 22, 2023 An Introduction to Computational Linguistics, Westlake High School, Austin, TX.

Open-Source Contributions

CovidET https://github.com/honglizhan/CovidET.

CovidET (Emotions and their Triggers during Covid-19) is a dataset of 1,883 English Reddit posts related to COVID-19, which contains manual annotations of perceived emotions and abstractive summaries of their triggers described in the post.

CovidET- https://github.com/tsosea2/CovidET-EXT.

EXT CovidET-EXT is a dataset that augments Zhan et al. (2022)'s abstractive dataset CovidET (in the context of the COVID-19 crisis) with extractive triggers. The result is a dataset of 1,883 Reddit posts about the COVID-19 pandemic, manually annotated with 7 fine-grained emotions (from CovidET) and their corresponding **extractive** triggers.

CovidET- https://github.com/honglizhan/CovidET-Appraisals-Public.

Appraisals CovidET-Appraisals is the most comprehensive dataset to-date that assesses 24 cognitive appraisal dimensions of emotions, each with a natural language rationale, across 241 Reddit posts. CovidET-Appraisals presents an ideal testbed to evaluate the ability of large language models — excelling at a wide range of NLP tasks — to automatically assess and explain cognitive appraisals.

Language Skills

Mandarin Native.

English **Near-Native**.

• TOEFL iBT: 112/120

• GRE: Verbal 162/170, Quantitative 167/170, Analytical Writing 5.0/6.0

• Test for English Majors Band 8 (TEM-8): Good

• Test for English Majors Band 4 (TEM-4): Excellent (90/100)

Japanese **Upper-Intermediate**.

• Japanese was taught as my Second Foreign Language course at SJTU

Italian Intermediate.