

# Sahand Sabour

Conversational AI Lab, FIT Building 4-504, Tsinghua University

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## EDUCATION

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### Doctor of Philosophy in Computer Science and Technology

*September 2022 - Present*

Tsinghua University, Beijing, China

Advised by Dr. Minlie Huang

GPA: 4.00 | Top 1%

### Master of Science in Computer Science and Technology

*September 2020 - July 2022*

Tsinghua University, Beijing, China

Advised by Dr. Minlie Huang

GPA: 3.90 | Top 1% | Outstanding Graduate Student and Thesis

### Bachelor of Engineering in Computer Science and Technology

*September 2016 - July 2020*

Xi'an Jiaotong Liverpool University, Suzhou, China

Supervised by Dr. Ming Xu

GPA: 3.89 | Top 5%

## RESEARCH EXPERIENCE

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### Summer Research Intern

*June 2022 - September 2022*

*Beijing Lingxin Intelligent Technology, Beijing, China*

- Collaborated on creating a chatbot for emotional support (Emohaa).
- Designed and conducted a two-week mental health support intervention using Emohaa.
- Supervised the data collection process and analyzed the obtained results.
- Achieved valuable hands-on experience with user studies, experimental design, and data analysis.

### Graduate Research Assistant

*September 2020 - Present*

*Conversational AI Lab, Beijing, China*

- Collaborated on developing novel text-based datasets for emotional and empathetic dialogue systems.
- Developed a novel design for leveraging commonsense knowledge in generating empathetic responses.
- Supervised and participated in the collection of a large-scale mental health support dataset.
- Obtained valuable experience with deep learning frameworks, libraries, and models.
- Successfully published several papers in top-tier conferences.

## PUBLICATIONS

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### Conference Papers

- Siyang Liu\*, **Sahand Sabour\***, Yinhe Zheng, Pei Ke, Xiaoyan Zhu, and Minlie Huang. *Rethinking and Refining the Distinct Metric*. In Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics and the 12th International Joint Conference on Natural Language Processing.
- **Sahand Sabour**, Chujie Zheng, and Minlie Huang. *CEM: Commonsense-aware Empathetic Response Generation*. In Proceedings of the 36th Annual Meeting of Association for the Advancement of Artificial Intelligence.
- Siyang Liu, Chujie Zheng, Orianna Demasi, **Sahand Sabour**, Yu Li, Zhou Yu, Yong Jiang, and Minlie Huang. *Towards Emotional Support Dialog Systems*. In Proceedings of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing.

### Under Review

- **Sahand Sabour**, Wen Zhang, Xiyao Xiao, Yuwei Zhang, Yinhe Zheng, Jiaxin Wen, Jialu Zhao, and Minlie Huang. *Chatbots for Mental Health Support: Exploring the Impact of Emohaa on Reducing Mental Distress in China*. Submitted to Journal of Digital Health in Frontiers 2023.

- Jiale Cheng\*, **Sahand Sabour\***, Hao Sun, Zhuang Chen, and Minlie Huang. *PAL: Persona-Augmented Emotional Support Conversation Generation*. Submitted to ACL 2023.
- Chujie Zheng, **Sahand Sabour**, Jiaxin Wang, and Minlie Huang. *AugESC: A Large-scale Machine-Augmented Dataset for Emotional Support Conversation*. Submitted to ACL 2023.
- Jincenzi Wu, Zhuang Chen, Jiawen Deng, **Sahand Sabour**, and Minlie Huang. *COKE: A Cognitive Knowledge Graph for Machine Theory of Mind*. Submitted to ACL 2023.

\* indicates equal contribution.

## SELECTED PROJECTS

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### Empathetic Dialogue Systems' Paper List

September 2020 - Present

- Collected a comprehensive list of papers related to emotion, empathy, and mental health support.
- Leveraged this list to provide insightful resources on emotional, empathetic, and supportive dialogue systems to assist and encourage research on these topics.
- Monitored the recent publications on the topic and frequently edited the list.

### Multi-Camera Pedestrian Localization

October 2019 - May 2020

*Final-year project as a major part of undergraduate thesis*

- Constructed a framework that utilizes the information from multiple cameras to establish common ground between the different views and localize pedestrians within this area.
- Proposed and developed a novel algorithm that displays a bounding box around each pedestrian, with the height of the box matching the pedestrian's estimated height.

## ACADEMIC ACHIEVEMENTS

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- Xinghua Scholarship (PhD) 2022 - 2026
- Chinese Government Scholarship (PhD) 2022 - 2026
- Outstanding Graduate Student Award 2022
- Outstanding Graduate Thesis Award 2022
- Chinese Government Scholarship (Master's) 2020 - 2022
- Jiangsu Jasmine Scholarship 2016 - 2020
- Xi'an Jiaotong Liverpool University Academic Achievement Award 2018
- Xi'an Jiaotong Liverpool University Academic Excellence Award 2017

## PRESENTATIONS

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### CEM: Commonsense-aware Empathetic Response Generation

- Jan 2021. Beijing Institute of Artificial Intelligence (BAAI)
- Feb 2021. Association for the Advancement of Artificial Intelligence (AAAI 2022)

## SERVICE

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### Reviewer

- The 37th Annual Meeting of Association for the Advancement of Artificial Intelligence (AAAI 2023)
- The 60th Annual Meeting of the Association for Computational Linguistics (ACL 2022)

## SKILLS AND INTERESTS

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### Research Interests

Cognitive Science, Natural Language Processing, Text-based Emotion and Empathy, Emotional and Mental Health Support, Commonsense Knowledge and Reasoning, Open-domain Dialogue Systems

### Programming Languages

Python, C++, Java, JavaScript, SQL

### Frameworks

PyTorch, React, Django

### Libraries/Frameworks

NumPy, Pandas, Matplotlib, Huggingface, Gensim, Spacy

### Version Control/Operating System

Git, Linux