Sahand Sabour

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

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EDUCATION

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

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.

PUBLICATIONS

Peer-Reviewed Papers

· Siyang Liu, Naihao Deng, **Sahand Sabour**, Yilin Jia, Minlie Huang, and Rada Mihalcea. *Task-Adaptive Tokenization: Enhancing Long-Form Text Generation Efficacy in Mental Health and Beyond*. In Proceedings of the 2023 Empirical Methods in Natural Language Processing (EMNLP 2023 Main).

· **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*. Journal of Frontiers in Digital Health, Volume 5, 2023.

· Jiale Cheng*, **Sahand Sabour***, Hao Sun, Zhuang Chen, and Minlie Huang. *PAL: Persona-Augmented Emotional Support Conversation Generation*. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023 Findings).

· Chujie Zheng, **Sahand Sabour**, Jiaxin Wang, Zhang Zheng, and Minlie Huang. *AugESC: A Large-scale Machine-Augmented Dataset for Emotional Support Conversation*. In Proceedings of the 61st Annual Meeting of the Association for Computational Linguistics (ACL 2023 Findings).

· 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 (ACL 2022 Main).

- **Sahand Sabour**, Chujie Zheng, and Minlie Huang. *CEM: Commonsense-aware Empathetic Response Generation*. In Proceedings of the 36th Meeting of Association for the Advancement of Artificial Intelligence (AAAI 2021).
- 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 (ACL 2021 Main).

Under Review

- **Sahand Sabour**, Siyang Liu, Zheyuan Zhang, June M Liu, Jinfeng Zhou, Alvionna S Sunaryo, Juanzi Li, Tatia Lee, Rada Mihalcea, and Minlie Huang. *EmoBench: Evaluating the Emotional Intelligence of Large Language Models*. Submitted to ACL 2024.
- Jincenzi Wu, Zhuang Chen, Jiawen Deng, **Sahand Sabour**, and Minlie Huang. *COKE: A Cognitive Knowledge Graph for Machine Theory of Mind*. Submitted to ACL 2024.
- Jinfeng Zhou, Zhuang Chen, Dazhen Wan, Bosi Wen, Yi Song, Jifan Yu, Yongkang Huang, Libiao Peng, Jiaming Yang, Xiyao Xiao, **Sahand Sabour**, Xiaohan Zhang, Wenjing Hou, Yijia Zhang, Yuxiao Dong, Jie Tang, and Minlie Huang. *Characterglm: Customizing chinese conversational ai characters with large language models*. Submitted to ACL 2024.

* indicates equal contribution.

SELECTED PROJECTS

Emotional Support Chatbot for Undergraduate Students (THUrtle)   *March 2023 - June 2023*
- Designed and programmed a platform to facilitate support for undergraduate students and teachers in Tsinghua.
- Leveraged large language models as the backbone to simulate supporters and support seekers; supporters for providing effective support to students and seekers to enable support training for teachers.
- Formulated and conducted a user study to study the platform's short-term effectiveness.

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

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

SOCIAL SERVICES

Reviewer
- The Annual Meeting of Association for the Advancement of Artificial Intelligence (AAAI)
- The Annual Meeting of the Association for Computational Linguistics (ACL & EMNLP)

SKILLS AND INTERESTS

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