# MOHAN SHI

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## **EDUCATION**

#### **University of California, Los Angeles (UCLA)**

Los Angeles, CA, USA

Ph.D. student, Electrical and Computer Engineering

Sep. 2024 - present

• Advisor: Dr. Abeer Alwan (Distinguished Prof. & Vice Chair, Fellow of IEEE/ISCA/ASA)

## **University of Science and Technology of China (USTC)**

Hefei, Anhui, China

Master of Engineering, Electronic Engineering and Information Science

Sep. 2021 - Jun. 2024

• Advisor: Dr. Li-Rong Dai

# **Dalian University of Technology (DUT)**

Dalian, Liaoning, China

Bachelor of Engineering, Electronic Information Engineering

Sep. 2017 - Jun. 2021

• Rank: 1/185 (top 1%)

# **EXPERIENCE**

Tencent AI Lab Bellevue, WA, USA (Remote)

Research Intern Sep. 2023 - Aug. 2024

Mentor(s): Dr. Yong Xu, Dr. Shi-Xiong (Austin) Zhang

• Conducted research on large language model (LLM)-based multi-talker ASR, achieving state-of-the-art results on the evaluation set of the AMI corpus.

• Conducted research on end-to-end all-in-one model integrating multi-talker ASR, speaker diarization, and speech separation.

#### Alibaba Qwen Speech Lab

Hangzhou, Zhejiang, China

Research Intern

Jul. 2022 - May. 2023

Mentor(s): Dr. Shiliang Zhang

- Conducted research on speaker-attributed ASR ("who spoke what" in multi-talker scenarios) and proposed a "Context-Aware Speaker-Attributed ASR" model that outperforms previous works.
- Conducted research on "Semantic VAD", reducing tail segmentation latency without significantly impact on back-end performance.
- Compared Multi-Channel speaker-attributed ASR approaches with single-channel methods.
- Participated in organizing "The Second Multi-Channel Multi-Party Meeting Transcription Challenge" (M2MeT2.0), where I developed the baseline system for the speaker-attributed ASR task.

### PUBLICATIONS

- Mohan Shi, Zengrui Jin, Yaoxun Xu, Yong Xu, Shi-Xiong Zhang, Kun Wei, Yiwen Shao, Chunlei Zhang, Dong Yu. Advancing Multi-talker ASR Performance with Large Language Models. (SLT 2024).
- Zengrui Jin\*, Yifan Yang\*, Mohan Shi\*, Wei Kang, Xiaoyu Yang, Zengwei Yao, Fangjun Kuang, Liyong Guo, Lingwei Meng, Long Lin, Yong Xu, Shi-Xiong Zhang, Daniel Povey. LibriheavyMix: A 20,000-Hour Dataset for Single-Channel Reverberant Multi-Talker Speech Separation, ASR and Speaker Diarization. (Interspeech 2024, Oral).
- Mohan Shi, Zhihao Du, Qian Chen, Fan Yu, Yangze Li, Shiliang Zhang, Jie Zhang, Li-Rong Dai. CASA-ASR: Context-Aware Speaker-Attributed ASR. (Interspeech 2023, Poster).
- Mohan Shi, Yuchun Shu, Lingyun Zuo, Qian Chen, Shiliang Zhang, Jie Zhang, Li-Rong Dai. Semantic VAD: Low-Latency Voice Activity Detection for Speech Interaction. (Interspeech 2023, **Oral**).

- Mohan Shi, Jie Zhang, Zhihao Du, Fan Yu, Qian Chen, Shiliang Zhang, Li-Rong Dai. A Comparative Study on Multichannel Speaker-Attributed Automatic Speech Recognition in Multi-party Meetings. (APSIPA ASC 2023).
- Yuhao Liang, **Mohan Shi**, Fan Yu, Yangze Li, Shiliang Zhang, Zhihao Du, Lei Xie, Yanmin Qian, Jian Wu, Zhuo Chen, Kong Aik Lee, Zhijie Yan, Hui Bu. The Second Multi-Channel Multi-Party Meeting Transcription Challenge (M2MeT 2.0): A Benchmark for Speaker-Attributed ASR. (ASRU 2023).
- Yangze Li, Fan Yu, Yuhao Liang, Pengcheng Guo, **Mohan Shi**, Zhihao Du, Shiliang Zhang, Lei Xie. SA-Paraformer: Non-autoregressive End-to-End Speaker-Attributed ASR. (ASRU 2023).
- Weitai Zhang, Zhongyi Ye, Haitao Tang, Xiaoxi Li, Xinyuan Zhou, Jing Yang, Jianwei Cui, Pan Deng, **Mohan Shi** et al. The USTC-NELSLIP Offline Speech Translation Systems for IWSLT 2022. (IWSLT 2022).

## **THEORY AND AWARDS**

UCLA ECE FellowshipSep. 2024Outstanding Graduate of USTCJune. 2024Outstanding Graduate of Liaoning ProvinceJune. 2021National ScholarshipNov. 2018

# SKILLS

• Toolkits: PyTorch ESPnet Nemo FunASR (Contributor)

• Languages: Mandarin English