Tingle Li

Incoming Ph.D. Student, UC Berkeley

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EDUCATION

University of California, Berkeley

Berkeley, CA

Incoming Ph.D. in Computer Science

Starting from Aug. 2022

• Affiliated to Berkeley Artificial Intelligence Research (BAIR) Lab

Tiangong University

Tianjin, China

B.Eng. in Computer Science and Technology

Sep. 2016 - Jun. 2020

• Pilot class of Artificial Intelligence (an elite program for top 10% students)

Research Interests

Audio Processing: Source Separation, Voice Conversion, Music Information Retrieval Multi-modal Perception: Audio-visual Learning, Self-supervised Learning, Computer Vision

Preprints

PUBLICATIONS & Tingle Li, Yichen Liu, Andrew Owens, Hang Zhao. "Learning Visual Styles from Audio-Visual Associations". In Proc. ECCV, 2022.

> Running Zhao, Jiangtao Yu, Tingle Li, Edith C.H. Ngai, Hang Zhao. "Radio2Speech: High Quality Speech Recovery from Radio Frequency Signals". In Proc. Interspeech, 2022.

> Chenxu Hu, Qiao Tian, Tingle Li, Yuxuan Wang, Hang Zhao. "Neural Dubber: Dubbing for Videos According to Scripts". In Proc. NeurIPS, 2021.

> Tingle Li, Yichen Liu, Chenxu Hu, Hang Zhao. "CVC: Contrastive Learning for Non-parallel Voice Conversion". In Proc. Interspeech, 2021.

> Tingle Li, Jiawei Chen, Haowen Hou, Ming Li. "Sams-Net: A Sliced Attention-based Neural Network for Music Source Separation". In Proc. ISCSLP, 2021. (Oral Presentation)

> Qingjian Lin, Tingle Li, Lin Yang, Junjie Wang, Ming Li. "Optimal Mapping Loss: A Faster Loss for End-to-End Speaker Diarization". In Proc. Odyssey, 2020.

> Tingle Li, Qingjian Lin, Yuanyuan Bao, Ming Li. "Atss-Net: Target Speaker Separation via Attention-based Neural Network". In Proc. Interspeech, 2020.

> Qingjian Lin, Tingle Li, Ming Li. "The DKU Speech Activity Detection and Speaker Identification Systems for Fearless Steps Challenge Phase-02". In Proc. Interspeech, 2020.

Research EXPERIENCE

Electrical Engineering and Computer Science

University of Michigan

Advisor: Prof. Andrew Owens

Apr. 2021 - Present

Learning Visual Styles from Audio-Visual Associations

- Proposed a novel task termed audio-driven image stylization, which aims to convert the texture of a visual scene conditioned on sound (project page).

Institute for Interdisciplinary Information Sciences (IIIS)

Tsinghua University Jul. 2020 - Present

Advisor: Prof. Hang Zhao

CVC: Contrastive Learning for Non-parallel Voice Conversion

- Explored a voice conversion model based on noise contrastive estimation loss, which enables one-way conversion in the non-parallel voice conversion setting (project page).

Neural Dubber: Dubbing for Videos According to Scripts

- Introduced a novel task called *automatic video dubbing*, which aims to synthesize speech temporally synchronized with the video given scripts (project page).

Modality Laziness: Everybody's Business is Nobody's Business

- Discussed an optimization problem in multi-modal fusion methods, where encoders from multi-modal training suffer from learning insufficient representations of each modality (paper).

Data Science Research Center

Duke Kunshan University

Advisor: Prof. Ming Li

Jul. 2019 - Jul. 2020

Atss-Net: Target Speaker Separation via Attention-based Neural Network

- Proposed a method that leverages the attention mechanism to incorporate the mixture spectrogram and target speaker embedding (project page).

Sams-Net: A Sliced Attention-based Neural Network for Music Source Separation

- Proposed a method in which the scope of attention is narrowed down to the intra-chunk features that are most likely to affect each other (project page).

Optimal Mapping Loss: A Faster Loss for End-to-End Speaker Diarization

- Developed a novel optimal mapping loss between the output and ground-truth speaker sequences through the Hungarian algorithm (paper).

AWARDS & ACHIEVEMENTS

Berkeley Graduate Student Fellowship	Aug.	2022
BAIR Research Ignition Award	Aug.	2022
ISCA Travel Grant Award, Interspeech 2021	Jun.	2021
Best Undergraduate Dissertation (top 1%)	Jun.	2020
1 st for SID & 3 rd for SAD, Fearless Steps Challenge Phase-2, Interspeech 2020	May.	2020
Presidential Scholarship for Outstanding Students (top 5%) Dec. 2017,	2018,	2019
1 st Prize, China Students Innovation and Entrepreneurship Competition (top 8%)	May.	2019
3 rd Prize, Lan-Qiao Cup National Selection Competition	May.	2017