

BIOGRAPHY

I am currently a third-year PhD student in Department of System Engineering and Engineering Management in the Chinese University of Hong Kong. My supervisor is Prof. Helen Meng.

- **The Chinese University of Hong Kong** Shatin, Hong Kong
PhD candidate in Dept. of System Engineering and Engineering Management; 08/2017 – Now
- **The Chinese University of Hong Kong** Shatin, Hong Kong
Research Assistant in Dept. of System Engineering and Engineering Management; 06/2017 – 08/2017
- **Hong Kong University of Science and Technology** Saikung, Hong Kong
Research Assistant in Dept. of Industrial Engineering and Decision Analytics; 08/2016 – 06/2017
- **Zhejiang University** Hangzhou, China
B.E. in Dept. of Control Science and Engineering; GPA: 3.97/4.0 (Ranking 7/142) 08/2012 – 07/2016

PUBLICATIONS

- Jointly Trained Conversion Model and WaveNet Vocoder for Non-parallel Voice Conversion using Mel-spectrograms and Phonetic Posteriorgrams,
Songxiang Liu, Yuewen Cao, Xixin Wu, Lifa Sun, Xunyin Liu and Helen Meng in the Proceedings of Interspeech 2019.
- Voice Conversion Across Arbitrary Speakers Based on a Single Target-Speaker Utterance,
Songxiang Liu, Jinghua Zhong, Lifa Sun, Xixin Wu, Xunyin Liu and Helen Meng in the Proceedings of Interspeech 2018, 2-6 September 2018, Hyderabad.
- The HCCL-CUHK System for the Voice Conversion Challenge 2018,
Songxiang Liu, Lifa Sun, Xixin Wu, Xunyin Liu and Helen Meng in the Odyssey 2018 The Speaker and Language Recognition Workshop 26-29 June 2018, Les Sables d'Olonne, France.
- Rapid Style Adaptation Using Residual Error Embedding for Expressive Speech Synthesis,
Xixin Wu, Yuewen Cao, Mu Wang, **Songxiang Liu**, Shiyin Kang, Zhiyong Wu, Xunying Liu, Dan Su, Dong Yu and Helen Meng in the Proceedings of Interspeech 2018, 2-6 September 2018, Hyderabad.
- Feature Based Adaptation For Speaking Style Synthesis,
Xixin Wu, Lifa Sun, Shiyin Kang, **Songxiang Liu**, Zhiyong Wu, Xunyin Liu and Helen Meng in the Proceedings of the IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), pp. 5304-5308. Calgary, Canada, 15-20 April, 2018.
- End-to-end Mixed-lingual TTS With Monolingual Recordings,
Yuewen Cao, Xixin Wu, **Songxiang Liu**, Jianwei Yu, Xu Li, Zhiyong Wu, Xunying Liu, Helen Meng.
Accepted by International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2019.

RESEARCH EXPERIENCE & PROJECT

- 06/2019-08/2019: Summer Visiting to **National Taiwan University** (supervised by Prof. Hung-yi Lee). In the first several weeks, I worked on Adversarial Attacks on ASVspoofing countermeasure systems and submitted a paper to ASRU 2019. In the remaining days, I have been working on unsupervised ASR using GAN-based models and the work is still on-going.
- 2017-Now: **Non-parallel Voice Conversion & Emotional Voice Conversion based on Phonetic Posteriorgrams(PPGs)**, at CUHK.
This stream of techniques for Voice Conversion relies on training of a **Speaker-Independent Automatic Speech Recognition (SI-ASR)** system to extract Phonetic Posteriorgrams(PPGs), which bridge the gap

between the source-target acoustic features. For emotional Voice Conversion, PPGs are regarded as auxiliary features containing rich linguistic information, which boosts the conversion performance.

- 2016-2017: **Operations Research**, at HKUST.
Focus on dynamic pricing and fresh logistics.

HONORS & AWARDS

- 2018: Best paper award in the International Doctoral Forum 2018, Tsinghua University(Shenzhen)
- 2014: First Prize of Excellent Undergraduate Scholarship, Zhejiang University
- 2012-2014: National Endeavor Fellowship, Zhejiang University
- 2013-2014: Excellent All-round Student, Zhejiang University
- 2014,2015: Supcon Company Scholarship, Supcon Company
- 2014: 2nd Prize, Mathematics Innovation Competition, Zhejiang Province
- 2014: 2nd Prize, Physics Innovation Competition, Zhejiang Province

PROGRAMMING SKILLS

- **Languages:** Python > C/C++ > MATLAB
- **Frameworks:**Pytorch, TensorFlow, Kaldi