

SHANG-YI CHUANG

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EDUCATION

National Taiwan University (NTU) Cumulative GPA: 3.86/4.30 2012 – 2017, *Taiwan*
B.Eng., Major in Mechanical Engineering (ME), Minor in Electrical Engineering
Advanced Medical Device Lab, Advisor: Prof. Hao-Ming Hsiao

Osaka University (OU) Rank: S (Highest rank) 2016 – 2017, *Japan*
FrontierLab@OsakaU Program
Motor Intelligence Lab, Advisor: Prof. Tomomichi Sugihara

Heidelberg University Rank: Sehr gut (Highest rank) 2013 Summer, *Germany*
NTU Student Representative of Summer School

PROFESSIONAL EXPERIENCE

Academia Sinica – CITI 2018 – Present
RA, Advisor: Prof. Yu Tsao, Biomedical Acoustic Signal Processing Lab
Faculty Collaborator: Prof. Hsin-Min Wang (IIS) *Taipei, Taiwan*

- **Real-World Application of Multimodal Learning on Speech Enhancement (SE) [1, 2]**
 - Improved the applicability of DL-based models on embedded systems.
 - Confirmed the usefulness of lip images, both compressed and non-compressed.
 - Addressed asynchronous and low-quality multi-data problems.
- **Self-Supervised Multimodal Learning**
 - Applied a denoising autoencoder with linear regression decoder to audio-only SE and audio-visual SE.
 - Both situations contain only unlabeled data.

PUBLICATIONS

- [1] **S.-Y. Chuang**, H.-M. Wang, and Y. Tsao, “Improved lite audio-visual speech enhancement,” submitted to *Neural Networks*, 2020.
- [2] **S.-Y. Chuang**, Y. Tsao, C.-C. Lo, and H.-M. Wang, “Lite audio-visual speech enhancement,” in *Proc. Interspeech 2020*.
- [3] S.-W. Fu, C.-F. Liao, T.-A. Hsieh, K.-H. Hung, S.-S. Wang, C. Yu, H.-C. Kuo, R. E. Zezario, Y.-J. Li, **S.-Y. Chuang**, Y.-J. Lu, and Y. Tsao, “Boosting objective scores of speech enhancement model through metricgan post-processing,” submitted to *Proc. APSIPA 2020*.

AWARDS AND HONORS

ISCA and Interspeech Travel Grant 2020, *China*
JASSO Scholarship OU, 2016-2017, *Japan*
2nd Prize in ME Robot Cup ME, NTU, 2015, *Taiwan*
Dean’s List Award (Top 5% of the class in GPA) ME, NTU, 2013, *Taiwan*

ACADEMIC SERVICE

Reviewer, IEEE Transactions on Audio, Speech and Language Processing 2020