WEN-CHIN HUANG

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https://unilight.github.io/

EDUCATION

Nagoya University Apr. 2019 - Present
M.S., Graduate School of Informatics
Advisor: Prof. Tomoki Toda

National Taiwan University Sep. 2014 - Jun. 2018
B.S. in Computer Science & Information Science
Overall GPA 3.79/4.3; Last 60 4.04/4.3

PROFESSIONAL EXPERIENCES

NTT Communication Science Laboratories, NTT Corporation, Japan Aug. 2019 - Sep. 2019
Research Intern
Advisor: Dr. Hirokazu Kameoka

Institute of Information Science, Academia Sinica, Taiwan Jul. 2017 - Mar. 2019
Research Assitant
Advisor: Dr. Hsin-Min Wang, Dr. Yu Tsao

ACADEMIC ACTIVITIES

Organizer/Committee Member

1. Organizing Committee, the Voice Conversion Challenge 2020

HONORS

- **Scholarship for International Students**, JEES Docomo, 2019
- **Travel grant**, ISCA and Interspeech 2019
- **Best Student Paper Award**, The 11th International Symposium on Chinese Spoken Language Processing (ISCSLP), 2018

PUBLICATIONS

Preprints

1. H. Kameoka, W.-C. Huang, K. Tanaka, T. Kaneko, N. Hojo, and T. Toda, "Many-to-Many Voice Transformer Network," *arXiv preprint arXiv:2005.08445*, 2020, submitted to IEEE TASLP
2. W.-C. Huang, T. Hayashi, Y.-C. Wu, H. Kameoka, and T. Toda, "Voice Transformer Network: Sequence-to-Sequence Voice Conversion Using Transformer with Text-to-Speech Pretraining," *arXiv preprint arXiv:1912.06813*, 2019, submitted to Interspeech 2020

Journals

1. W.-C. Huang, H. Luo, H.-T. Hwang, C.-C. Lo, Y.-H. Peng, Y. Tsao, and H.-M. Wang, "Unsupervised Representation Disentanglement Using Cross Domain Features and Adversarial Learning in Variational Autoencoder Based Voice Conversion," *IEEE Transactions on Emerging Topics in Computational Intelligence*, 2020

2. X. Wang, J. Yamagishi, M. Todisco, H. Delgado, A. Nautsch, N. Evans, M. Sahidullah, V. Vestman, T. Kinnunen, K. A. Lee, L. Juvela, P. Alku, Y.-H. Peng, H.-T. Hwang, Y. Tsao, H.-M. Wang, S. L. Maguer, M. Becker, F. Henderson, R. Clark, Y. Zhang, Q. Wang, Y. Jia, K. Onuma, K. Mushika, T. Kaneda, Y. Jiang, L.-J. Liu, Y.-C. Wu, W.-C. Huang, T. Toda, K. Tanaka, H. Kameoka, I. Steiner, D. Matrouf, J.-F. Bonastre, A. Govender, S. Ronanki, J.-X. Zhang, and Z.-H. Ling, "Asvspoof 2019: a large-scale public database of synthetized, converted and replayed speech," *Computer Speech & Language*, vol. 64, p. 101114, 2020

Peer-reviewed Conferences

1. W.-C. Huang, Y.-C. Wu, K. Kobayashi, Y.-H. Peng, H.-T. Hwang, P. Lumban Tobing, T. Toda, Y. Tsao, and H.-M. Wang, "Generalization of Spectrum Differential based Direct Waveform Modification for Voice Conversion," in *Proc. 10th ISCA Speech Synthesis Workshop*, 2019, pp. 57–62
2. W.-C. Huang, Y.-C. Wu, C.-C. Lo, P. Lumban Tobing, T. Hayashi, K. Kobayashi, T. Toda, Y. Tsao, and H.-M. Wang, "Investigation of F0 Conditioning and Fully Convolutional Networks in Variational Autoencoder Based Voice Conversion," in *Proc. Interspeech*, 2019, pp. 709–713
3. W.-C. Huang, Y.-C. Wu, H.-T. Hwang, P. Lumban Tobing, T. Hayashi, K. Kobayashi, T. Toda, Y. Tsao, and H.-M. Wang, "Refined WaveNet Vocoder for Variational Autoencoder Based Voice Conversion," in *Proc. 27th European Signal Processing Conference (EUSIPCO)*, Sep 2019
4. W.-C. Huang, H.-T. Hwang, Y.-H. Peng, Y. Tsao, and H.-M. Wang, "Voice conversion based on cross-domain features using variational auto encoders," in *Proc. The 11th International Symposium on Chinese Spoken Language Processing (ISCSLP)*, Nov 2018
5. C.-C. Lo, S.-W. Fu, W.-C. Huang, X. Wang, J. Yamagishi, Y. Tsao, and H.-M. Wang, "MOSNet: Deep Learning based Objective Assessment for Voice Conversion," in *Proc. Interspeech*, 2019, pp. 1541–1545

Domestic Conferences

1. W.-C. Huang, Y.-C. Wu, H.-T. Hwang, P. Lumban Tobing, T. Hayashi, K. Kobayashi, T. Toda, Y. Tsao, and H.-M. Wang, "Reducing mismatch of WaveNet vocoder for variational autoencoder based voice conversion," in *ASJ*, Mar 2019
2. W.-C. Huang, C.-C. Lo, H.-T. Hwang, Y. Tsao, and H.-M. Wang, "Wavenet vocoder and its applications in voice conversion," in *Proc. The 30th ROCLING Conference on Computational Linguistics and Speech Processing (ROCLING)*, Oct 2018

MISCELLANEOUS WORKS

Invited/visiting talks

1. W.-C. Huang "Machine Reading Comprehension with Deep Learning", National Taiwan University of Science and Technology, May. 2018

SKILLS

Languages	Mandarin: native; English: fluent; Japanese: intermediate
Programming languages	Python, Matlab, C++
Deep learning frameworks	PyTorch, TensorFlow, Chainer