RUI LIU (PHD)

Contact: r.liu@u.nus.edu Date of Birth: 1994.05.18

Gender: Male

Nationality: People's Republic of China

Address: Department of Electrical and Computer

Engineering.

4 Engineering Drive 3. Block E4, #06-20.

Singapore 117583.



Dr. Rui Liu received his PhD at Computer Science from Inner Mongolia University of China in 2020. He has been a visiting PhD student at National University of Singapore, fully-funded by China Scholarship Council. Dr. Rui Liu's research interests include speech information processing, machine learning and speech synthesis. He has published in leading journals and conferences, including IEEE/ACM Transactions on Audio, Speech, and Language Processing; IEEE Signal Processing Letters; INTERSPEECH and ICASSP.

EDUCATION

PhD (Exchange) Electrical and Computer Engineering National University of Singapore, Singapore Fully-funded by China Scholarship Council (CSC) Scholarship PhD Computer Science Inner Mongolia University, China BS Bachelor of Engineering in Software Engineering Dept. of software, Taiyuan University of Technology 2019-2020 2019-2020 2020 2019-2020 2019-2020

HONORS AND AWARDS

2020 ICASSP IEEE SPS Travel Grant

- 2019 China Scholarship Council (CSC) scholarships
- 2018 National scholarship for Doctoral students
- 2018 Academic scholarship of Inner Mongolia autonomous region
- 2017 National scholarship for Doctoral students
- 2017 Academic scholarship of Inner Mongolia autonomous region
- 2016 Academic scholarship of Inner Mongolia autonomous region
- 2011 National Encouragement scholarship

SELECTED PUBLICATIONS

1. **Rui** Liu, Berrak Sisman, Feilong Bao, Jichen Yang, Guanglai Gao and Haizhou Li, Exploiting morphological and phonological features to improve prosodic phrasing for Mongolian speech

- synthesis. IEEE/ACM Transactions on Audio, Speech, and Language Processing, 2020. (Accepted)
- 2. Yi Zhou, Xiaohai Tian, Xuehao Zhou, Mingyang Zhang, Grandee Lee, **Rui Liu**, Berrak Sisman, and Haizhou Li, NUS-HLT System for Blizzard Challenge 2020, in Proc. Joint Workshop for the Blizzard Challenge and Voice Conversion Challenge, Shanghai, China, October 2020, pp. 44-48.
- 3. **Rui Liu**, Berrak Sisman, Feilong Bao, Guanglai Gao and Haizhou Li, Modeling Prosodic Phrasing with Multi-Task Learning in Tacotron-based TTS, IEEE Signal Processing Letters, 27, 2020, pp. 1470-1474.
- 4. **Rui Liu**, Berrak Sisman, Jingdong Li, Feilong Bao, Guanglai Gao and Haizhou Li. Teacher-Student Training For Robust Tacotron-based TTS. In: 45th International Conference on Acoustics, Speech, and Signal Processing (ICASSP2020)
- 5. **Rui Liu**, Berrak Sisman, Feilong Bao, Guanglai Gao and Haizhou Li. WaveTTS: Tacotron-based TTS with Joint Time-Frequency Domain Loss. In: 12nd The Speaker and Language Recognition Workshop (Odyssey2020)
- 6. **Rui Liu**, Jingdong Li, Feilong Bao and Guanglai Gao. The IMU speech synthesis entry for Blizzard Challenge 2019. In: Blizzard Challenge 2019
- 7. **Rui Liu**, Feilong Bao, and Guanglai Gao. Building Mongolian TTS Front-End with Encoder-Decoder Model by Using Bridge Method and Multi-view Features. In: 33rd International Conference on Neural Information Processing (ICONIP2019)
- 8. **Rui Liu**, Feilong Bao, Guanglai Gao, Hui Zhang and Yonghe Wang. Improving Mongolian Phrase Break Prediction by Using Syllable and Morphological Embeddings with BiLSTM Model. In: 15th Conference of the International Speech Communication Association (InterSpeech2018)
- 9. **Rui Liu**, Feilong Bao, Guanglai Gao, Hui Zhang and Yonghe Wang. A LSTM Approach with Sub-Word Embeddings for Mongolian Phrase Break Prediction. In: 27th International Conference on Computational Linguistics (COLING 2018)
- 10. **Rui Liu**, Feilong Bao, Guanglai Gao, Hui Zhang and Yonghe Wang. Phonologically Aware BiLSTM Model for Mongolian Phrase Break Prediction with Attention Mechanism. In: 15th Pacific Rim International Conference on Artificial Intelligence (PRICAI2018)
- 11. Jingdong Li, Hui Zhang, **Rui Liu**, Xueliang Zhang and Feilong Bao. End-to-End Mongolian Text-to-Speech System. In: 11th International Symposium on Chinese Spoken Language Processing (ISCSLP2018)
- 12. **Rui** Liu, Feilong Bao, Guanglai Gao and Yonghe Wang. Mongolian Text-to-Speech System Based on Deep Neural Network. National Conference on Man-Machine Speech Communication. Springer, Singapore, 2017: 99-108.
- 13. **Rui Liu**, Feilong Bao and Guanglai Gao. Mongolian prosodic phrase prediction using suffix segmentation. In: 20th International Conference on Asian Language Processing (IALP 2016)
- 14. **Rui** Liu, Feilong Bao, Guanglai Gao and Hongwei Zhang. Approach to Prediction Mongolian Prosody Phrase Based on CRF Model. In: 13th National Conference on Man-Machine Speech Communication (NCMMSC2015)

REFERENCES

1. Dr. Haizhou Li (IEEE Fellow, ISCA Fellow) Professor, National University of Singapore

Email: eleliha@nus.edu.sg Contact: +65 6516 6473

Website: https://www.eng.nus.edu.sg/ece/staff/li-haizhou/

2. Dr. Berrak Sisman

Assistant Professor, Singapore University of Technology and Design (SUTD)

Email: Berrak_sisman@sutd.edu.sg

Contact: +65 86207616

Website: https://istd.sutd.edu.sg/people/faculty/berrak-sisman

3. Dr. Guanglai Gao

Professor, Inner Mongolia University

Email: csggl@imu.edu.cn Contact: +86 138 4703 1101

Website: https://ccs.imu.edu.cn/info/1152/3125.htm