

Zhu Li (李柱)

✉ lzblcu19@gmail.com

🌐 <https://abel1802.github.io/lizhu>

Research Interests

Broad Neural Speech Synthesis

Narrow Improving Prosody in TTS, Voice Conversion

Education

2019 - **M.Sc. in Software Engineering**, *Beijing Language and Culture University*

2015 - 2019 **B.Sc. in Software Engineering**, *Hefei Normal University*

Publications

Conference Proceedings

Zhu Li, Yanlu Xie, and Dengfeng Ke. “Speech Stimulus Continuum Generation: A Deep Learning Approach.” In: *International Conference on Asian Language Processing* (December 2021). [pdf]

Yuqing Zhang, **Zhu Li**, and Jinsong Zhang. “Towards the Use of Pretrained Language Model GPT-2 for Testing the Hypothesis of Communicative Efficiency in the Lexicon.” In: *International Conference on Asian Language Processing* (December 2021). [pdf]

Yuqing Zhang, **Zhu Li**, Bin Wu, Yanlu Xie, Binghuai Lin, and Jinsong Zhang. “Relationships Between Perceptual Distinctiveness, Articulatory Complexity and Functional Load in Speech Communication.” In: *Proc. Interspeech* (2021), pp. 1733–1737. [doi]

Yuqing Zhang, **Zhu Li**, Binghuai Lin, and Jinsong Zhang. “A Preliminary Study on Discourse Prosody Encoding in L1 and L2 English Spontaneous Narratives.” In: *Proc. Interspeech* (2021), pp. 3949–3953. [doi]

Yuqing Zhang, **Zhu Li**, and Jinsong Zhang. “A Comparison Study on the Alignment of Prosodic and Semantic Units and Its Effects on F0 Shifting in L1 and L2 English Spontaneous Speech.” In: *International Symposium on Chinese Spoken Language Processing* (2021). [doi]

Dan Du, Xianjin Zhu, **Zhu Li**, and Jinsong Zhang. “Perception and Production of Mandarin Initial Stops by Native Urdu Speakers.” In: *Proc. Interspeech* (2020), pp. 2397–2401. [doi]

Presentations

Zhu Li, Yuqing Zhang, Dengfeng Ke, Binhuai Lin, and Yanlu Xie. “Data-driven Stimulus Continuum Generation with Variational Autoencoder.” In: *National Conference on Man-Machine Speech Communication* (October 2021). [pdf]

In Progress

(Submitted to ICASSP 2022): **Zhu Li**, Yuqing Zhang, Mengxi Nie, Ming Yan, Mengnan He, Ruixiong Zhang, Caixia Gong. “Improving Prosody for Unseen Texts in Speech Synthesis by Utilizing Linguistic Information and Noisy Data.”

(Submitted to ICASSP 2022): Mengnan He, Tingwei Guo, Yuqing Zhang, **Zhu Li**, Ruixiong Zhang, Caixia Gong. “Improving GAN-based Vocoder for Fast and High-quality Speech Synthesis.”

Patent

Zhu, Li. 2021. A Method and Apparatus for Stimulus Continuum Generation based on Variational Autoencoder (co-inventor) - CN Patent CN202110841392, filed July 26, 2021, and issued October 15, 2021.

Teaching Experience

Spring 2020 **Teaching Assistant**, *Discrete Mathematics*

Winter 2019 **Teaching Assistant**, *Introduction to Probability Theory*

Industrial Working Experience

June 2021 - **Speech Algorithm Intern**, *Speech Synthesis and Language Modeling*, AI Enabling Platform, DiDi Chuxing, China

- Emotional Speech Synthesis and Conversion

- Improving Prosody in FastSpeech2-based TTS

Language Skills

Programming Languages, Python, C, C++, Java, Shell Scripting

Natural Languages, Mandarin (native), English

Tools, Pytorch, Tensorflow, Praat