Zhu Li (李柱)

✉ *lzblcu19@gmail.com*
🌐 *https://abel1802.github.io/lizhu*

Research Interests

Broad — Neural Speech Synthesis, Voice Conversion/Modification

Narrow — Improving Prosody in TTS, Continuum Generation, Feature Disentanglement

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]

Yuqing Zhang, **Zhu Li**, and Jinsong Zhang. "Relationships between Perceptual Distinctiveness and Functional Load in Different Phonological Contexts". In: *National Conference on Man-Machine Speech Communication* (October 2021).

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." [arxiv]

(Submitted): 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
	- Expressive 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