Linkai Peng

✉ penglinkai96@gmail.com | ✉ penglinkai@corp.netease.com
🏠 https://vocaliodmiku.github.io | ⚙ https://github.com/vocaliodmiku
🎓 Google Scholar | ℝᵉ Research Gate

Education

Beijing Language and Culture University   Sep. 2019 - Jun. 2022
M.S. in Software Engineering   *Speech Acquisition and Intelligent Technology (SAIT) Lab*
♋ *Graduated with Outstanding Graduation Dissertation Award, supervised by Prof. Jinsong Zhang.*
Relevant Courses: Speech Information Processing, Prosodic Information Processing,
                Academic lectures on Language Intelligence Technology,
                Fundamental of Man-Machine Speech Communication.

South China Normal University   Sep. 2015 - Jun. 2019
B.S. in Physics

Experience

NetEase   Jul. 2022 - Present

Machine Learning Engineer in Youdao Group   *Beijing, China*

- Conducted human-centered speech technology research and applications, leveraging linguistics/phonetics, Generative AI and deep learning to intellectualize language learning.
- Designed and improved speech assessment systems, including real-time systems and offline systems optimized for edge devices.

ByteDance   Nov. 2020 - Feb. 2021

Speech Research intern in AI Lab   *Beijing, China*

- Worked in AI lab to optimize an education product using machine learning techniques, enhancing customer experience for millions of online users.
- Investigated and improved the algorithms for automatic scoring of pronunciation quality, adapting them to our specific scenario for potential performance gain.

Papers

[1] **Peng, Linkai**, Baorian Nuchged, and Yingming Gao. "Spoken Language Intelligence of Large Language Models for Language Learning." arXiv preprint arXiv:2308.14536 (2023).

[2] R. Bao, **L. Peng**, Y. Gao and J. Zhang, "The Contribution of Phonological and Fluency Factors to Chinese L2 Comprehensibility Ratings: A Case Study of Urdu-speaking Learners," 2022 13th International Symposium on Chinese Spoken Language Processing (ISCSLP), Singapore, Singapore, 2022, pp. 394-398, doi: 10.1109/ISCSLP57327.2022.10038233.

[3] R. Bao, **L. Peng**, Y. Yan and J. Zhang, "An Exploratory Study for Quantifying the Contextual Information for Successful Chinese L2 Speech Comprehension," 2022 13th International Symposium on Chinese Spoken Language Processing (ISCSLP), Singapore, Singapore, 2022, pp. 389-393, doi: 10.1109/ISCSLP57327.2022.10038037.

[4] R. Bao, **L. Peng**, Y. Gao and J. Zhang, "The Importance of Lexical Tone for Sentence Understanding: Utilizing Functional Load Principle to Simulate Comprehension Process," 2022 International Conference on Asian Language Processing (IALP), Singapore, Singapore, 2022, pp. 379-383, doi: 10.1109/IALP57159.2022.9961243.

[5] R. Bao, **L. Peng** and J. Zhang, "The Contributions of Initials and Finals to L2 Chinese Comprehensibility Based on Functional Load Principle," 2022 International Conference on Asian Language Processing (IALP), Singapore, Singapore, 2022, pp. 358-362, doi: 10.1109/IALP57159.2022.9961277.

[6] **Peng, Linkai**, et al. "Text-Aware End-to-end Mispronunciation Detection and Diagnosis." arXiv preprint arXiv:2206.07289 (2022).

[7] **L. Peng**, W. Dai, D. Ke and J. Zhang, "Multi-Scale Model for Mandarin Tone Recognition," 2021 12th International Symposium on Chinese Spoken Language Processing (ISCSLP), Hong Kong, 2021, pp. 1-5, doi: 10.1109/ISCSLP49672.2021.9362063.

[8] **Peng, L.**, Fu, K., Lin, B., Ke, D., Zhan, J. (2021) A Study on Fine-Tuning wav2vec2.0 Model for the Task of Mispronunciation Detection and Diagnosis. Proc. Interspeech 2021, 4448-4452, doi: 10.21437/Interspeech.2021-1344