Ye-Xin Lu 鲁叶欣

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Education

Eng.D Student in Communication Engineering

School of Information Science and Technology, University of Science and Technology of China

- ∻ Thesis: Research on robust and controllable personalized speech synthesis in acoustic environments (Expected)
- ∻ Supervised by Prof. Zhen-Hua Ling
- ♦ GPA: 3.40/4.3

B.E. degree in Electronic Information Engineering

School of the Gifted Young, University of Science and Technology of China

- ∻ Thesis: Research on pre-trained acoustic representation models
- ∻ GPA: 3.14/4.3

Selected Publications

Journal

- Ye-Xin Lu, Yang Ai, Hui-Peng Du, Zhen-Hua Ling, "Towards high-quality and efficient speech bandwidth extension [1] with parallel amplitude and phase prediction", IEEE/ACM Transactions on Audio, Speech, and Language Processing, 2024, accepted.
- [2] Ye-Xin Lu, Yang Ai, Zhen-Hua Ling, "Explicit estimation of magnitude and phase spectra in parallel for high-quality speech enhancement", submitted to Neural Networks, under review.
- [3] Yang Ai, Xiao-Hang Jiang, Ye-Xin Lu, Hui-Peng Du, Zhen-Hua Ling, "APCodec: A neural audio codec with parallel amplitude and phase spectrum encoding and decoding", IEEE/ACM Transactions on Audio, Speech, and Language Processing, vol. 32, pp. 3256-3269, 2024.
- Yang Ai, Ye-Xin Lu, Zhen-Hua Ling, "Long-frame-shift neural speech phase prediction with spectral continuity [4] enhancement and interpolation error compensation", IEEE Signal Processing Letters, vol. 30, pp. 1097-1101, 2023.

Conference

- [1] Ye-Xin Lu, Hui-Peng Du, Zheng-Yan Sheng, Yang Ai, Zhen-Hua Ling, "Incremental disentanglement for environmentaware zero-shot text-to-speech synthesis", in Proc. ICASSP, 2025, accepted.
- Ye-Xin Lu, Yang Ai, Zheng-Yan Sheng, Zhen-Hua Ling, "Multi-stage speech bandwidth extension with flexible [2] sampling rate control", in Proc. INTERSPEECH, 2024, pp. 2270-2274.
- [3] Ye-Xin Lu, Yang Ai, Zhen-Hua Ling, "MP-SENet: A speech enhancement model with parallel denoising of magnitude and phase spectra", in Proc. INTERSPEECH, 2023, pp. 3834-3838.
- Ye-Xin Lu, Yang Ai, Zhen-Hua Ling, "Source-filter-based generative adversarial neural vocoder for high fidelity [4] speech synthesis", in Proc. National Conference on Man-Machine Speech Communication, 2022, pp. 68-80.
- Yang Ai, Ye-Xin Lu, Xiao-Hang Jiang, Zheng-Yan Sheng, Rui-Chen Zheng, Zhen-Hua Ling, "A low-bitrate neural [5] audio codec framework with bandwidth reduction and recovery for high-sampling-rate waveforms", in Proc. INTERSPEECH, 2024, pp. 1765-1769.
- Hui-Peng Du, Ye-Xin Lu, Yang Ai, Zhen-Hua Ling, "BiVocoder: A bidirectional neural vocoder integrating feature [6] extraction and waveform generation", in Proc. INTERSPEECH, 2024, pp. 3894-3898.

Honors

\diamond	USTC Outstanding Student Scholarship (Grade 3)	2019.12 & 2020.12
\diamond	USTC Strive Student Scholarship	2019.12 & 2020.12
\diamond	USTC Outstanding Freshman Scholarship (Grade 1)	2017.12

∻ USTC Outstanding Freshman Scholarship (Grade 1)

Language – Chinese/English

∻ National College English Test (CET) Band 6: 516 2021.09-2026.06 (Expected)

Hefei, Anhui, China

2017.08-2021.06 Hefei, Anhui, China