Qingyu LIU

qliu91@jh.edu, https://qingyuliu0521.github.io/

EDUCATION

Johns Hopkins University | Baltimore, MD   Aug. 2025 – Present
M.S.E. in Electrical and Computer Engineering

Shanghai Normal University | Shanghai, CHN   Oct. 2020 – Jun. 2024
B.S. in Electronic Information Engineering (Outstanding Graduate)
GPA: 3.95/4.00 (Rank: 2/523, Top 0.5%)
TOEFL iBT: 104

RESEARCH EXPERIENCE

Cross-Lingual F5-TTS v1, Shanghai Jiao Tong University X-LANCE Lab   Nov. 2025 – Present
Core Member | Supervisor: Prof. Xie Chen

- Proposed generating audio prompts via F5-TTS inference to replace forced alignment for transcript-free voice cloning training in original Cross-Lingual F5-TTS.
- Developed a data construction pipeline via F5-TTS inference for each training sample with quality filtering.

Multilingual F5-TTS, Shanghai Jiao Tong University X-LANCE Lab   Oct. 2025 – Present
Core Member | Supervisor: Prof. Xie Chen

- Developing a multilingual text-to-speech system based on F5-TTS.
- Optimizing text tokenizers for Multilingual F5-TTS.

Cross-Lingual F5-TTS v0, Shanghai Jiao Tong University X-LANCE Lab   Mar. 2025 – Sep. 2025
Core Member | Supervisor: Prof. Xie Chen

- Developed a novel framework based on F5-TTS with MMS forced alignment that enables cross-lingual zero-shot voice cloning without requiring audio prompt transcripts.
- Designed and trained speaking rate predictors to derive speech duration from audio prompt pace.
- Deployed an interactive online demo on Hugging Face Space for public evaluation.

Infant Cry and Snoring Detection, Shanghai Normal University   Nov. 2023 – Jul. 2024
Leading Researcher | Supervisor: Prof. Yanhua Long

- Constructed and open-sourced the Infant Cry and Snoring Detection (ICSD) dataset for public research use.
- Proposed the Competitive CRNN+BEATs method, significantly improving system performance on the ICSD dataset.
- Released the ICSD dataset and baseline codes on GitHub.

INTERNSHIP EXPERIENCE

Johns Hopkins University, Center for Speech and Language Processing   Dec. 2025 – Present
Research Assistant | Supervisor: Prof. Berrak Sisman

Shanghai Jiao Tong University, X-LANCE Lab   Aug. 2024 – Present
Remote Research Assistant | Supervisor: Prof. Xie Chen

PUBLICATIONS

- **Qingyu Liu**, Yushen Chen, Zhikang Niu, Chunhui Wang, Yunting Yang, Bowen Zhang, Jian Zhao, Pengcheng Zhu, Kai Yu, Xie Chen*. "Cross-Lingual F5-TTS: Towards Language-Agnostic Voice Cloning and Speech Synthesis," in *ICASSP*, 2026.
- **Qingyu Liu**, Longfei Song, Dongxing Xu, Yanhua Long* "ICSD: An Open-source Dataset for Infant Cry and Snoring Detection," *Journal of the Audio Engineering Society*.
- **Qingyu Liu**, Li Li, Yifan Zhou, Dongxing Xu, Yanhua Long* "A Comparative Study of Deep Learning Methods for Infant Cry Detection," in *NCMMSC*, 2023.

AWARDS

Gold Award, 10th China International College Students "Internet+" Competition   June. 2024
Gold Award, 14th Challenge Cup   July. 2024
First Prize, 14th China National Undergraduate "Innovation, Creativity, and Entrepreneurship" Challenge   May. 2024
Gold Award, 9th "Think Youth" Digital Creation, Innovation & Entrepreneurship Competition   Apr. 2024
Excellent Project Completion, National Undergrad Training Program (Top 5%)   Nov. 2024