

Jiawei Du

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EDUCATION

National Taiwan University

M.S. in Computer Science and Information Engineering, GPA 4.03/4.3

Taipei, Taiwan

Sep. 2022 - Jun. 2025

- Interests: Anti-spoofing, Neural Audio Codec and Audio Centric Multimodal LLM
- Supervised by Prof. [Jyh-Shing Roger Jang](#) and work intensively with Prof. [Hung-yi Lee](#).
- Ranking 1/189 in the department in the 2023/24 academic year.

MingChuan University

B.S. in Information and Telecommunications Engineering, GPA 3.98/4.0

Taoyuan, Taiwan

Sep. 2018 - Jun. 2022

- Ranking 1/79 in the department cumulatively.

Shanghai Jiao Tong University

Exchange Student in Computer Science and Technology

Shanghai, China

Sep. 2020 - Jan. 2021

PUBLICATIONS

- **J. Du***, X. Chen*, H. Wu, L. Zhang, I.M. Lin, I.H. Chiu, W. Ren, Y. Tseng, Y. Tsao, J.S.R. Jang, and H.Y. Lee, "CodecFake-Omni: A Large-Scale Codec-based Deepfake Speech Dataset," IEEE/ACM Transactions on Audio, Speech, and Language Processing (Submitted to TASLP 2025)
- **J. Du***, X. Chen*, H. Wu, J.S.R. Jang, and H.Y. Lee, "Neural Codec-based Adversarial Sample Detection for Speaker Verification," ISCA Proc. Interspeech 2024 (Poster at Interspeech 2024)
- **J. Du***, I.M. Lin*, I.H. Chiu*, X. Chen, H. Wu, W. Ren, Y. Tsao, et.al, "DFADD: The Diffusion and Flow-Matching Based Audio Deepfake Dataset," 2024 IEEE Spoken Language Technology Workshop (Poster at SLT 2024)
- H. Wu, **J. Du***, X. Chen*, Y.C. Lin*, K.W. Chang*, K.H. Lu*, A.H. Liu*, H.L. Chung*, Y.K. Wu*, D. Yang*, S. Liu, Y.C. Wu, X. Tan, J. Glass, S. Watanabe, and H.Y. Lee, "Codec-SUPERB@ SLT 2024: A lightweight benchmark for neural audio codec models," 2024 IEEE Spoken Language Technology Workshop (Poster at SLT 2024)
- H. Wu*, H.C. Chou*, K.W. Chang, L. Goncalves, **J. Du**, et al., "Open-Emotion: A Reproducible EMO-SUPERB for Speech Emotion Recognition Systems," 2024 IEEE Spoken Language Technology Workshop (Poster at SLT 2024)
- H. Wu*, H.C. Chou*, K.W. Chang, L. Goncalves, **J. Du**, J.S.R. Jang, C.C. Lee, and H.Y. Lee, "Empower Typed Descriptions by Large Language Models for Speech Emotion," 2024 Asia Pacific Signal and Information Processing Association Annual Summit and Conference (Oral at APSIPA ASC 2024)
- H. Wu*, H.C. Chou*, K.W. Chang, L. Goncalves, **J. Du**, J.S.R. Jang, C.C. Lee, and H.Y. Lee, "EMO-SUPERB: An In-depth Look at Speech Emotion Recognition," arXiv preprint arXiv:2402.13018 (Preprint 2024)
- **J. Du***, C.C. Wang*, and J.S.R. Jang, "Dcase 2023 task 6b: Text-to-audio retrieval using pretrained models," Detection and Classification of Acoustic Scenes and Events 2023 (DCASE Tech. Rep 2023)

RESEARCH EXPERIENCE

Research Assistant

MIR LAB, National Taiwan University

Taipei, Taiwan

Sep. 2022 - Jun. 2025

- Examined Neural Audio Codec applications in deepfake detection, proposed codec-based synthetic audio as a novel spoofing category, and systematically analyzed and categorized existing Neural Audio Codecs (paper).
- Proposed a Neural Audio Codec based method for adversarial sample detection in Automatic Speaker Verification, achieving a 99.32% (SoTA) detection performance on ASV systems (paper).
- Explored limitations in anti-spoofing datasets, proposed a dataset for detecting TTS-generated audio from Diffusion and Flow matching based models, achieving up to 47% EER reduction on OOD testsets (paper).
- Studied audio-visual deepfake localization, improving the SoTA model UMMAFormer from 13.1% to 75.7% mAP@50 on our private dataset via LoRA tuning.
- Led team to achieve 5.33% EER (ranked 13/49) in Singing Voice Deepfake Detection Challenge (results).
- Explored audio-text retrieval using VALOR and cross attention, achieving 3rd place in DCASE Challenge (results).

SKILLS

Programming Languages: Python, C/C++

ML Libraries & Tools: PyTorch, Sklearn, Pandas, Numpy, OpenCV, Git, WSL, Linux, LaTeX

Language: Mandarin (native), English (IELTS 6.5)

Services: Reviewer of IEEE SLT 2024, IEEE JSTSP 2024, IJPRAI 2024; Technical committee of Codec-SUPERB