

# Hsiu-Hsuan Wang

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## Education

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### National Taiwan University

- M.S. Electrical Engineering, Computer Science 2024.09 - 2026.06 (exp.)  
*supervised by Prof. Hung-Yi Lee*
- B.S. Computer Science and Information Engineering 2020.09 - 2024.06 | overall GPA: 4.07/4.3  
*supervised by Prof. Hsuan-Tien Lin*

## Work Experiences

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### Research Intern, @Taiwan Web Service, ASUS

2024.6 - 2025.06 (1yr)

- Developed the first Mandarin full-duplex spoken language model for real-time speech-to-speech conversation, achieving near-human response latency of 300ms.
- Designed an optimized preprocessing pipeline, achieving near 100% GPU utilization across 8 **NVIDIA H100 GPUs** to process 6TB of raw audio data within 24 hours.

### Chief Technology Officer, @Mygram AI Inc.

2023.08 - present (1yr 2 mos)

- Led the development of a full-stack AI dating app, leading a **seven-member team** to launch the app on the App Store in **six months**.

### Head of Network Administration, @Speech Processing Lab, NTU

2024.12 - present (4 mos)

- Maintained a cluster of five compute nodes with **over 20 GPUs**, managed with Slurm.

### Machine Learning Engineer, @LTTC x ASUS

2024.06 - 2024.10 (4 mos)

- Designed and deployed a **production-ready**, GPU-powered judging server.
- Built a scalable backend infrastructure using Docker containers and Flask server, supporting seamlessly across 1 to 20 concurrent clients with a stable response time.

## Open Source Contribution

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### ESPnet Hackathon,

2024.06 - 2024.12 (6 mos)

- Reduced 85% training time with only ~2% CER degradation on speech unit ASR pipelines built upon the large ESPnet Python codebase.

### libcll: First open source Toolkit for Complementary Label Learning

2023.10 - 2024.01 (3 mos)

- Implement 16 algorithms and 11 datasets (2 real-world ones) with extendable designs and benchmark for complementary label learning research. ([repo link](#))

## Research Publications

Full list: [Google Scholar](#)

- **Building Taiwanese Mandarin Spoken Language Model: A First Attempt.** *Technical Report*
- **Exploring speech recognition, translation, and understanding with discrete speech units: A comparative study.** *Accepted by Iccasp 2024*
- **Codec-SUPERB: An In-Depth Analysis of Sound Codec Models.** *Accepted to ACL 2024*
- **Findings of the 2023 ML-Superb Challenge: Pre-Training And Evaluation Over More Languages And Beyond.** *Accepted by ASRU 2023*

## Academic Projects

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### Speech Crawling with Meta

2022.10 - 2023.08 & 2024.02 - present (1yr 6 mos)

- Designed a parallel pipeline to run speaker language detection of **200k hours of audio data** (40TB) within 48 hours.

## Awards

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2023 Honorable Mention Undergraduate Project Award

2022 Excellent **Teaching Assistant Award** for course Data Structure and Algorithm, NTU