Hsiu-Hsuan Wang

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EDUCATION

B.S. (Computer Science) at National Taiwan University

2024

M.S. (Electrical Engineering, Computer Science group) at National Taiwan University 2026(exp.)

RESEARCH EXPERIENCE

NTU Computer Learning Lab supervised by Prof. Hsuan-Tien Lin

Jun 2022 - present

- Currently doing research related to time series forecasting.
- Corwdsourcing Summer Intern: Contribute two datasets CLCIFAR10 and CLCIFAR20, with complementary labels annotated by 1K workers from Amazon Mechanical Turk, a crowdsourcing platform.

NTU Speech Lab supervised by Prof. Hong-Yi Lee

Sep 2022 - present

- Currently doing research on improving the semantics information of speech dialogue generated by Generative Spoken Dialogue Language Modeling.
- Use fairseq library to train a multilingual BERT aligning HuBERT embedding tokens and phonemes to do unsupervised automatic speech recognition tasks.

Preprints

- [1] **Hsiu-Hsuan W.**, Wei-I L., Hsuan-Tien L. "CLCIFAR: CIFAR-Derived Benchmark Datasets with Human Annotated Complementary Labels". Submitted to NeurIPS Dataset and Benchmark track. 2023. arXiv: 2305.08295 [cs.LG].
- [2] Iu-thing K., **Hsiu-Hsuan W.**, Chun-Yi K., Ho-Lam C., Tsu-Yuan H., Kai-Wei C., Peng-Jen C., **Changhan W.**, Ann L., Hongyu G., Hung-yi L. "Voxcentum: Spoken Language Identification for 100+ Languages Expanded to 100+ Hours". Under review. 2023.
- [3] Jiatong S., William C., Dan B., **Hsiu-Hsuan W.**, Wei Ping H., En Pei H., C., Xuankai C., Yuxun T., Shang-Wen L., Abdelrahman M., Hung-yi L., Shinji W. "Findings of the 2023 ML-SUPERB Challenge: Pre-Training and Evaluation over More Languages and Beyond". Under review. 2023.
- [4] Xuankai C.. Brian Y., Kwanghee C., Soumi Maiti S.. Jeeweon J., Yichen L.. Jiatong S., Shinji W., Yuya F., Jinchuan T., Takashi M., Pengcheng G., Kohei S., Hsiu-Hsuan W. "Exploring Speech Recognition, Translation, and Understanding with Discrete Speech Units: A Comparative Study". Under review. 2023.

Projects

Speech Crawling Project with Meta(Facebook)

Oct 2022 - Aug 2023

- Developed code to validate a spoken language identification model trained on VoxCentum, a 137-language dataset proposed by our team. The paper has been submitted to 2023 ASRU conference.
- Collaborate remotely with the Meta research team from the United States and senior students from the department of electrical engineering, NTU.

Automatic Essay Scoring System

Mar 2023 - present

- Engaged in cross-domain collaboration with Prof. Zhao Ming Gao from the Department of Foreign Languages and Literatures.
- Implemented off-topic essay identification techniques to enhance score prediction accuracy.

AWARDS

- 2023 Honorable Mention Undergraduate Project Award
- 2022 Excellent Teaching Assistant Award for course Datastructure and Algorithm, NTU