Shi-Yan (Eddie) **Weng**

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Summary

Currently undergraduate student at National Taiwan Normal University. **Hands-on experiences in Kaldi, Espnet, Linux and Pytorch**. Exploring NLP and Speech Processing and trying to integrate them for better application. Enjoy and willing to accept new techniques to tackle the problems. Interested in devising a better problem-solving method for challenging tasks, and learning new technologies and tools if the need arises.

Education

National Taiwan Normal University — *Taipei, Taiwan*

M.S. in Computer Science and Information Engineering — *Sep. 2020 -*

National Taiwan Normal University — *Taipei, Taiwan*

B.S. in Computer Science and Information Engineering — *Sep. 2016 - Aug. 2020*

- awarded 2019 Outstanding Student Award

Honors & Awards

International

2018	**Honorable Mention**, The 2018 ICPC Asia Singapore Regional Contest	*Singapore*
2018	**Honorable Mention**, The 2018 ICPC Asia Taipei Regional Contest	*Taipei, Taiwan*

Domestic

2019	**MOST College Student Research Scholarship**, awarded by Ministry of Science and Technology	*Taiwan*
2019	**Runner-up of Best Poster Presentation Award**, ROCLING 2019	*New Taipei City, Taiwan*
2018	**Honorable Mention**, National Collegiate Programming Contest	*Taipei, Taiwan*
2018	**First Place of Breakthrough Group**, 2018 ITSA Annual Collegiate Programming Contest	*Taipei, Taiwan*

Publications

A Hierarchical Encoding Framework for Text Readability Prediction

ROCLING 2019 — *New Taipei City, Taiwan*

Shi-Yan Weng, Hou-Chiang Tseng, Yao-Ting Sung, Berlin Chen — *Oct. 3 - Oct. 5 2019*

- Presented a hierarchical framework to encode both the semantic or syntactic structures for better readability classification.
- Combined extra use of traditional handcrafted feature as side information to further boost the model's performance.
- Awarded Runner-up of Best Poster Presentation Award.

An Effective Contextual Language Modeling Framework for Speech Summarization with Augmented Features

EUSIPCO 2020 — *Amsterdam, Netherlands*

Shi-Yan Weng, Tien-Hong Lo, Berlin Chen — *Jan. 18-Jan.22, 2021*

- Adopt and contextualize the state-of-the-art BERT-based model for speech summarization.
- Explore the incorporation of confidence scores to see if such an attempt could help alleviate the negative effects caused by imperfect ASR.
- Augmented the sentence embeddings obtained from BERT with extra structural and linguistic features to boost the performance.

An Effective End-to-End Modeling Approach for Mispronunciation Detection

Submitted to Interspeech 2020

Tien-Hong Lo, **Shi-Yan Weng**, Berlin Chen

- Presented a novel use of hybrid CTC-Attention approach to the Mispronunciation Detection task.
- Performed input augmentation with text prompt information to make E2E model more tailored for the Mispronunciation Detection task.

The NTNU System at the Interspeech 2020 Non-Native Children's Speech ASR Challenge

Submitted to Interspeech 2020

Tien-Hong Lo, Fu-An Chao, **Shi-Yan Weng**, Berlin Chen

- Technical Report of the Interspeech 2020 Non-Native Children's Speech ASR Challenge supported by the SIG-CHILD group of ISCA.
- Achieved **Second place** in the competition.
- We built our ASR system on top of CNN-TDNNF-based acoustic models and tried various data augmentation strategies.