

# Chung-Yi Li

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link to this file (latest): <http://chung-i.github.io/files/cv.pdf>

## EDUCATION

### National Taiwan University

*M.S. in Communication Engineering*

GPA: Overall 4.13/4.3

Taipei

Sep. 2018 - Jan. 2021

### National Taiwan University

*B.S. in Electrical Engineering*

GPA: Overall 3.79/4.3

Taipei

Sep. 2014 - Jun. 2018

## EXPERIENCES/AWARDS/PROJECTS

### M.S. Student at National Taiwan University

Jan. 2021

- Proposed a novel probing method that probe the information in black-box end-to-end ASR systems through "audifying" hidden states of end-to-end ASR. Provided an intuitive way of network probing for speech processing tasks [3].
- Explored model-agnostic meta-learning methods on low-resource dependency parsing. Improved low-resource dependency parsing performance over standard multilingual pre-training baselines [2].
- Explored cross-lingual zero-shot transfer method for multilingual BERT [1].

### 1st Place in *Formosa Speech Recognition Challenge 2020 - Taiwanese ASR*

Jan. 2021

- Worked as a team of 2 to build a Taiwanese Southern Min(TSM) ASR system and a TSM-to-Mandarin speech-to-text translation system using Kaldi and Moses. [\[System Description\]](#) [\[Slide\]](#)
- Ranked 1st among 12 teams in the TSM ASR track
- Ranked 1st among 8 teams in the TSM-to-Mandarin speech-to-text translation track

### Speech Recognition Engineer Intern at *Taiwan AI Labs*

Jul. 2019 - Sep. 2019

- Built a TSM-to-Mandarin end-to-end speech-to-text translation system
- Crawled 1,500 hrs noisy parallel taiwanese speech and mandarin subtitles from Youtube
- Experimented with two popular end-to-end architectures: LAS(Listen, attend, and spell), RNN Transducer

### Coursework of CSIE5440: *Intelligent Conversational Chatbot*

Feb. 2017 - Jun. 2017

- Worked as a team of 4 to create a PTT(Taiwan version of Reddit) thread searching task-oriented bot consisting of NLU module, dialogue manager, DB, and NLG module.
- Implemented and crowd-sourced training data for NLU and NLG modules of the chatbot

### 4th Place at *Lawnote LegalTech Hackathon*

Sep. 2019

- Built a Chinese event graph extraction system tailored for legal documents leveraging classic NLP pipelines including SRL, NER, and coreference resolution

## PUBLICATIONS

- Chi-Liang Liu, Tsung-Yuan Hsu, Yung-Sung Chuang, Chung-Yi Li, and Hung-yi Lee. **Language Representation in Multilingual BERT and its applications to improve Cross-lingual Generalization.** *arXiv preprint arXiv:2010.10041*, 2020. [\[ArXiv\]](#)
- Chung-Yi Li. **Meta-Learning for Low-resource Dependency Parsing.** Master's thesis, National Taiwan University, Oct 2020. [\[paper \(in chinese\)\]](#)
- Chung-Yi Li\*, Pei-Chieh Yuan\*, and Hung-Yi Lee. **What does a network layer hear? Analyzing hidden representations of end-to-end ASR through speech synthesis.** In *ICASSP 2020-2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, pages 6434–6438. IEEE, 2020. [\[IEEE\]](#) [\[ArXiv\]](#) [\[demo\]](#)

## SKILLS

Programming	Python, shell script, Javascript
Frameworks and tools	Pytorch, Kaldi, Git, L <sup>A</sup> T <sub>E</sub> X
Languages	Taiwanese Mandarin(Native), Taiwanese Southern Min(Native)
Languages	English(TOEFL-iBT: R29/L28/S23/W27)