

# Sung-Lin Yeh

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## Research Interests

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### Speech Processing and Machine Learning

My research focuses on developing machine learning approaches to human-centered behavioral tasks. I'm currently interested in **Automatic Speech Recognition** and **Speech Emotion Recognition in Conversation**.

## Education

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### National Tsing Hua University (NTHU)

M.S. in Electrical Engineering, Behavioral Information & Interaction Computation Lab  
Thesis: ASR Dependent Speech Emotion Recognition in Conversation

Sep. 2018 - Aug. 2020

### National Tsing Hua University (NTHU)

B.S. in Physics

Sep. 2014 - June. 2018

## Research Experience

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### Behavioral Information & Interaction Computation Lab, NTHU

Graduate Researcher working with Prof. Chi-Chun Lee (Jeremy)

Mar. 2018 - Now

- Building end-to-end ASR models to extract domain-specific representations for speech emotion recognition using domain adaptation.
- Developing sequential inference algorithm for speech emotion recognition in conversation based on Chinese restaurant process and novel deep frameworks.

## Publications

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1. **Sung-Lin Yeh**, Yun-Shao Lin, Chi-Chun Lee. "Speech Representation Learning for Speech Emotion Recognition Using End-to-End ASR with Factorized Adaptation." *In Proceedings of the International Speech Communication Association (Interspeech 2020)*, [Online Presentation]
2. **Sung-Lin Yeh**, Yun-Shao Lin, Chi-Chun Lee. "A Dialogical Emotion Decoder For Speech Emotion Recognition in Spoken Dialog." *In IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2020)*, [Oral]
3. Yun-Zhu Song, Hong-Han Shuai, **Sung-Lin Yeh**, Yi-Lun Wu, Lun-Wei Ku, Wen-Chih Peng. "Attractive or Faithful? Popularity-Reinforced Learning for Inspired Headline Generation." *In the 34th AAAI Conference on Artificial Intelligence (AAAI 2020)*, [Poster]
4. **Sung-Lin Yeh**, Yun-Shao Lin, Chi-Chun Lee. "Using Attention Networks and Adversarial Augmentation for Styrian Dialect Continuous Sleepiness and Baby Sound Recognition." *In Proceedings of the International Speech Communication Association (Interspeech 2019)*, [Oral]
5. **Sung-Lin Yeh**, Yun-Shao Lin, Chi-Chun Lee. "An Interaction-Aware Attention Network for Speech Emotion Recognition in Spoken Dialog." *In IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2019)*, [Poster]
6. Bo-Hao Su, **Sung-Lin Yeh**, Ming-Ya Ko, Huan-Yu Chen, Shun-Chang Zhong, Jeng-Lin Li, Chi-Chun Lee. "Self-Assessed Affect Recognition using Fusion of Attentional BLSTM and Static Acoustic Features." *In Proceedings of the International Speech Communication Association (Interspeech 2018)*, [Oral]

## Teaching

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Lecturer on Kaldi Workshop

Aug. 20 - Oct. 2020

Teaching Assistant, Probability

NTHU EE, Spring 2020

Teaching Assistant, General Physics

NTHU Physics, Fall 2017

## Work Experience

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### Microsoft, Taiwan

Research Intern in R&D group

July. 2019 - June. 2020

## Selected Activities

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1st Place of INTERSPEECH 2019 Computational Paralinguistics Challenge sept 2019

1st place of Mandarin Speech Recognition Challenge in EE664000. Jan 2019

3rd Place of Civil IoT Taiwan Hackson (16000 USD) Oct 2018

## Awards

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Novatek Scholarship (4000 USD) July. 2019

NTHU EE Graduated Student Scholarship (2700 USD) July. 2018

TSMC Student Research Scholarship (1200 USD) May. 2017

NSC College Student Research Scholarship July. 2016 - Jan. 2018

## Skills

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**Languages** Python, C++, R, MATLAB, Shell Scripting

**Libraries & Toolkits** Tensorflow, Pytorch, Kaldi,  $\text{\LaTeX}$ , Git, Docker