

# HUNG-TING CHEN

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## EDUCATION

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**B.S. in Electrical Engineering, National Taiwan University**

*June 2020*

Overall GPA: 4.26/ 4.30 (No. 4/177)

### Relevant Courses

Computer Programming, Data Structure and Programming, Algorithms, Computer Architecture, Operating Systems, Introduction to Computer Networks, Machine Learning, Deep Learning for Computer Vision

## AWARDS

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- 3 \* Academic Excellence Award (top 5% in department in a semester)
- Second Prize in NTUEE undergraduate innovation award
- Second Award in Small Data Training for Medical Images contest (held by HTC Taiwan)

## RESEARCH EXPERIENCES

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**Institute of Information Science, Academia Sinica**

*Advisor: Wei-Yun Ma*

*Research Assistant*

July 2020 - Present

- Construct a template-based data-to-text system generating product description with BERT model
- Enhance generation quality of the system via template-optimization

*Research Intern*

June 2019 - June 2020

- Investigated neural dialog systems and natural language generation
- Constructed a short text conversation model which incorporates information from latent patterns, obtaining 36.42 BLEU-1 score on Weibo Benchmark Dataset
- Submitted work to AAAI 2021 workshop

**Speech Processing Laboratory, National Taiwan University**

*Undergraduate Research Assistant | Advisor: Lin-Shan Lee*

Sept. 2018 - June 2020

- Implemented a transformer-based neural model with pointer-generator network to summarize text
- Incorporated named-entity information into summarization model with modified attention
- Introduced entity-aware embedding to enhance ROUGE-1, -2 score by 5% and 8%

*Undergraduate Research Assistant | Advisor: Hung-Yi Lee*

Feb. 2020 - June 2020

- Investigated methods of meta-learning and implemented a paper in PyTorch
- Applied meta-learning methods on cross-accent automatic speech recognition

## PAPER PREPRINTS

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**Predict and Use Latent Patterns for Short-Text Conversation**

Hung-Ting Chen, Yu-Chieh Chao, Ta-Hsuan Chao, Wei-Yun Ma

[arxiv.org/abs/2010.13982]

## COURSE PROJECTS

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**Neural-Based Medical Image Analysis – Disease Detection**

Dec. 2018 - Jan. 2019

- Developed a neural model identifying 14 diseases on NIH chest X-Ray dataset
- Led the team, assigned tasks and designed project structure
- Won second award in “Small Data Training for Medical Images contest”

## Multi-Source Domain Adaptation on DomainNet

May. 2019 - June. 2019

- Modified Adversarial Discriminative Domain Adaptation (ADDA) into FuzzyADDA
- Implemented Maximum Classifier Discrepancy (MCD) method
- Ranked 1st and 2nd place in public and private leaderboards in Kaggle competition

## Quantification System of Weight Training Effectiveness

Feb. 2019 - June 2019

- Designed circuits to measure and process EMG (Electromyography) signals
- Used Raspberry Pi to receive signals from EMG circuits and send the calculated score to smartphones
- Developed an Android appication that received and displayed the calculated score

## TEACHING EXPERIENCES

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Teaching Assistant for *Signals and Systems*

Feb. 2019 - June 2019

Teaching Assistant for *Deep Learning for Human Language Processing*

Feb. 2020 - June 2020

## LEADERSHIP EXPERIENCES

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Minister of Activities Department of Composition Club

July 2018 - June 2019

- Assigned works to 12 members, arranged 2 activities and supervised the design of all activities

Vice Director of Changhua Area Alumni Association

June 2017 - June 2018

- Organized and coordinated affairs of 6 departments
- Supervised and assisted in handling 10 events

## TECHNICAL STRENGTHS

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Programming Languages

C++, Python, Matlab

Machine Learning

PyTorch, Keras, Tensorflow

Integrated Circuit Design

Verilog, System Verilog

Languages

Mandarin (Native), English (Fluent, TOEFL iBT: 109)