

# Ting-Wei Lu

MACHINE LEARNING · NATURAL LANGUAGE PROCESSING · SOFTWARE ENGINEERING

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## Education

### National Taiwan University

B.S. in Engineering Science and Ocean Engineering (ESOE)

- GPA: 3.86

Taipei, Taiwan

Sep. 2016 - Aug. 2020

## Work & Teaching Experience

### Academia Sinica - Chinese Knowledge and Information Processing Laboratory (CKIP)

Research Assistant (Full Time)

- Advisor: Prof. Ma, Wei-Yun
- Devised a dynamic content planning schema for Data-to-Text Generation, mimicking the thought process of human. Enhanced BLEU-Score by 4 points and F1-score by 1%

Taipei, Taiwan

Aug. 2020 - Present

### Cathay Financial Holdings

Data Scientist Intern

- Developed a unsupervised representation learning toolkit for tabular data. Boosting the performance of a variety of downstream tasks.
- Toolkit: <https://github.com/dwaydwaydway/BERTable>

Taipei, Taiwan

Jul. 2019 - Jun. 2020

### National Taiwan University

Research Assistant (Part Time)

- Advisor: Prof. Liu, Helen K
- Improved & deployed a web-scraping system that can reliably acquire online job-post data with 400% speedup.

Taipei, Taiwan

Mar. 2020 - Jun. 2020

Teaching Assistant

- [EE5184] Machine Learning (2019 Fall)

Sep. 2019 - Jan. 2020

## Publications

[1] Kai-Ling Lo, **Ting-Wei Lu**, Tzu-Teng Weng, I-Hsuan Chen, Yun-Nung Chen. 2020. Lion-net: Lightweight ontology-independent networks for schema-guided dialogue state generation. In Dialog System Technology Challenge Workshop at AAAI.

## Research

### Machine Intelligence and Understanding Laboratory (Miulab)

Advisor: Prof. Yun-Nung (Vivian) Chen

- Competed for DSTC8. Being the only team to outperform the baseline model without pre-trained language model.
- Survey on various topics on NLG such as humor generation and conversational reasoning.

National Taiwan University

Mar. 2019 - Jun. 2020

## Competitions

2019 The 8th Dialog System Technology Challenge - Schema-Guided Dialogue State Tracking. **Ranked 20<sup>th</sup> / 26**

DSTC8

2019 Self-Navigating Boat In-Class Contest. **Ranked 1<sup>th</sup> / 14**

NTU ESOE

2018 KKStream Deep Learning Workshop. **Ranked 21<sup>th</sup> / 91**

Taipei, Taiwan

2017 NTU System - App Creativity Contest. **Honorable Mention**

Taipei, Taiwan

## Skills

**Programming** Python · C++ · Java · C · SQL · Matlab

**Libraries & Toolkits** PyTorch · Tensorflow · Selenium · Git · Linux

## Extracurricular Activities

### Varsity Baseball Team

- Member of the varsity baseball team in both senior high and college.

National Taiwan University

### Tutoring

- Programming · Automatic Control · Math

Taipei, Taiwan