

# Ting-Wei Lu

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## Education

### Cornell University

M.S. in Information Systems and Applied Information Science

New York City, US

Aug. 2021 - Present

### National Taiwan University

B.S. in Engineering Science and Ocean Engineering (GPA: 3.86)

Taipei, Taiwan

Sep. 2016 - Aug. 2020

## Skills

**Programming** Python, C/C++, Java, SQL, JavaScript, HTML/CSS, Bash (Ordered by proficiency)

**Libraries & Toolkits** PyTorch, Tensorflow, Flask, Scrapy, Selenium, Git, Linux

## Work & Teaching Experience

### Chinese Knowledge and Information Processing Laboratory, Academia Sinica

Taipei, Taiwan

#### Research Assistant (Full Time)

Aug. 2020 - Jun. 2020

- Advisor: Prof. Ma, Wei-Yun
- Worked on various NLP topics with a focus on Data-to-Text Generation.
- Devised a dynamic content planning schema for Data-to-Text Generation that mimics the thought process of humans.

### Cathay Financial Holdings Co., Ltd.

Taipei, Taiwan

#### Data Scientist Intern

Jul. 2019 - Jun. 2020

- Developed an unsupervised representation learning toolkit for tabular data. Boosting the performance of a variety of downstream tasks.

### National Taiwan University

Taipei, Taiwan

#### Research Assistant (Part-Time)

Mar. 2020 - Jun. 2020

- Advisor: PProf. Liu, Helen K
- Improved & deployed a web-scraping system with a 400% speed-up compared to the prior system.
- Designed a syntax processing pipeline that extracts essential information and calculates the similarity between job posting and school curriculum.

### National Taiwan University

Taipei, Taiwan

#### Teaching Assistant

Sep. 2019 - Jan. 2020

- Teaching assistant for the Machine Learning course [EE5184]

## Projects

### Dynamic Data-to-Text Demo System

CKIP Lab

<https://ckip.iis.sinica.edu.tw/service/data2text/>

- A demo system for our Dynamic Content Planing (DCP) algorithm. Converting NBA Box-Score data into a game summary.
- Flask, PyTorch, Python, JavaScript, HTML, CSS

### BERTable: Universal Representation Learning Toolkit for Tabular Data

Cathay Holdings

<https://github.com/dwaydwaydway/BERTable>

- A cross-datatype representation learning toolkit for tabular data using transformer-based model.
- Distributed representations of both categorical and numerical data were learned by recovering missing values.
- PyTorch, Python

### Ticket Reservation System

NTU

<https://github.com/dwaydwaydway/Reservation-System>

- A ticket reservation system in Java using Command Design Pattern and a MySQL backend system.
- Java, MySQL, JDatePicker

## 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.

## Competitions

2019 **20<sup>th</sup> / 26 teams.** The 8<sup>th</sup> Dialog System Technology Challenge.

International

2019 **4<sup>th</sup> / 124 schools.** National Rubber Baseball Series.

Taiwan

2019 **1<sup>st</sup> / 14 teams.** Self-Navigating Boat Contest.

National Taiwan University

2017 **Honorable Mention.** App Creativity Contest.

National Taiwan University

## Extracurricular Activities

### Varsity Baseball Team

National Taiwan University

- Captain of the department baseball team and member of the varsity team. Won 2 regional championships.