

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

- GPA: 3.86

Taipei, Taiwan

Sep. 2016 - Aug. 2020

Work Experience

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

Research Assistant (Full Time)

- Advisor: Prof. Ma, Wei-Yun
- Research Topic: Data-to-Text Generation

Taipei, Taiwan

Aug. 2020 - Present

Cathay Financial Holdings

Data Scientist Intern

- Developed a cross-datatype unsupervised representation learning toolkit for tabular data.

Taipei, Taiwan

Jul. 2019 - Jun. 2020

National Taiwan University

Research Assistant (Part Time)

- Advisor: Prof. Liu, Helen K
- Scraping online job posts and analyzing their relevance against college curriculum

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, "LION-Net: Lightweight ONtology-independent Networks for Schema-Guided Dialogue State Generation". " in The 8th Dialog System Technology Challenge (DSTC8) in Proceedings of Thirty-Forth AAAI Conference on Artificial Intelligence (AAAI 2020), New York, USA, 2020.

Research

Machine Intelligence and Understanding Laboratory (Miulab)

Advisor: Prof. Yun-Nung (Vivian) Chen

- Punchline Generation · Dialogue State Tracking · Chinese Character Embedding

National Taiwan University

Mar. 2019 - Jun. 2020

Competitions

International

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

DSTC8

2017 Human Protein Atlas Image Classification. **Ranked 810th / 2169**

Kaggle

Domestic

2019 Self-Driving Boat In-Class Contest. **Ranked 1th / 14**

NTU ESOE

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

KKStream

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

NTU

Projects

LION-Net: Lightweight ONtology-independent Networks for Schema-Guided Dialogue State Generation

DSTC8

<https://github.com/MiuLab/LION-Net>

- Developed innovative approaches to multi-domain dialogue state tracking on the Schema-Guided Dialogue dataset.
- Built a seq2seq dialogue state generator with copy mechanism in which the natural language descriptions of slots are used as the input.

BERTable: Universal Representation Learning for Tabular Data

Cathay Holdings

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

- Developed 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.

Chinese Sub-Character Embedding

Miulab

<https://github.com/dwaydwaydway/Cangjie2Vec>

- Enriching Chinese word embedding with sub-character feature such as Cangjie or Component.

Skills

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

Libraries & Toolkits PyTorch · Selenium · Git · Linux

Extracurricular Activities

Varsity Baseball Team

National Taiwan University

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

Tutoring

Taipei, Taiwan

- Programming · Automatic Control · Math (high school level)