



# Yu-Hung (Edward) Wu

Research Assistant at the institute of Information Science, Academia Sinica



[edward.0726@gmail.com](mailto:edward.0726@gmail.com) · <https://marzear.github.io/> · +886-975-298-256

I'm currently working at Academia Sinica as a research assistant. Passionate about Natural Language Processing, Machine Learning, and FinTech. Fully prepared to bring the pro-active learning attitude and unwavering dedication to pursuing professional growth that contribute to my exceptional academic and internship performance.

## Education

**National Taiwan University of Science and Technology (NTUST), Taipei** Sep. 2017 – Jun. 2021

**B.S., Computer Science and Information Engineering and also Major in Finance**

- Overall GPA: 3.87 | CS Major GPA: 4.03 | Finance Major GPA: 3.86 | last 2 year GPA: 3.96
- Participated in the following under-graduate researches:
  1. BERT-Based Visual Question Answering (VQA) (Advised by Professor Kuan-Yu Chen)
  2. Video Activity Recognition in Sports Videos (Advised by Professor Bi-Ru Dai)
  3. High frequency trading (An interdisciplinary project, Advised by Professor Wei-Zhong Miao)
- I got 4<sup>th</sup> place in NTUST Computer Science Department Class 2021 Graduate Project Competition.

## Work Experiences

**Institute of Information Science, Academia Sinica, Taiwan** Jun. 2021 – Current

**Research Assistant**

- Academia Sinica is the leading academic institution, and also the national academy in Taiwan.
- I'm working at the [CKIP Lab](#), which goal is to construct research infrastructures with reusable resources for NLP.

**Industrial Technology Research Institute, Taiwan** Jul. 2020 – Jun. 2021

**Machine Learning Engineer Internship**

- Invited to work in the institute due to my outstanding academic performance.
- Responsible for developing a Deep Reinforcement Learning (DRL)-based dialogue system. Our goal is to develop a new way (new agent) to solve dialogue policy learning (based on Q-Learning).
- I also developed an algorithm to evaluate the quality of every target-based conversations.

**Teaching Assistant of Data Structures Course, NTUST** Aug. 2020 – Jan. 2021

- Become the teaching assistant in my advisor's course since I got "A+" in the course in 2018.
- Designed innovative programming assignments and helped students to solve the problems.

**Asia Pacific Machine Intelligence Company (AP-MIC), Taipei** Sep. 2018 – Mar. 2020

**Software Engineer Internship**

- AP-MIC is a business partner with Google, which focuses on developing dialogue engines.
- I have participated in designing the structure of dialogue engines.
- Developed a COVID-19 chatbot, which had reached 82,000 conversation sessions.

## Technical Skills

---

### Programming Languages

Python – 4+ years  
C++, C – 3+ years  
JavaScript, HTML, CSS – 2+ years  
R – 1+years  
Node.js – <1 year

---

### Natural Language Processing

BERT and its applications  
seq2seq applications  
Transformer  
Chinese Processing  
Intent Classification

---

### ML / Data Analysis Modules

RNN / CNN / GAN models  
Tensorflow2, Keras  
Numpy  
Sklearn  
Pandas

---

### Full-stack Development

Django  
Flask  
Angular 6

---

### Version Control

Git  
Docker

---

### Other

Web Crawler  
Database Management  
API Design

## Competition Experiences

Post Office Big Data Competition - Reached the Semifinals

Apr. 2019 – Jun. 2019

E-sun Tbrain NLP Competition – 5<sup>th</sup> place (409 participants in total)

Jun. 2020 – Aug. 2020

## Leadership Experiences

- Representative of computer science department in freshman orientation.
- Class representative in junior year.
- Team leader of course projects in full-stack development course, operating system course and software engineering course.

## Languages

- Mandarin (native)
- English (fluent)
- Japanese (novice)