

# Wei-Chung Liao

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## Research Interests

I am interested in Artificial Intelligence and Machine Learning, especially in Reinforcement Learning, Generative Models and their applications.

## Education

**2013 - 2017**     **National Taiwan University**, Taipei, Taiwan  
B.S., Computer Science & Information Engineering  
Overall GPA 3.77/4.3 (3.73/4.0)  
Last 60 GPA 3.95/4.3 (3.91/4.0)

**2016**            **Stanford University**, CA, USA  
Summer Program  
Overall GPA 4.0/4.3 (4.0/4.0)

## Experience

**Jun. 2018 - Present**   **National Tsing Hua University**, Hsinchu, Taiwan  
**Academia Sinica**, Taipei, Taiwan  
*Research Assistant*  
Advisor: Prof. Min Sun & Dr. Chu-Song Chen

- Researched on multi-task neural architecture search

**Mar. 2016 - May 2018**   **National Taiwan University**, Taipei, Taiwan  
*Research Assistant*  
Advisor: Prof. Shou-De Lin

- Researched on noise and noise-tolerant models
  - Categorized various kinds of noise and analyzed how they affect machine learning models
  - Analyzed noise-tolerant models and their capabilities of dealing with data contaminated by different kinds of noise
  - Researched on how to choose appropriate noise-tolerant models in different situations

**Sep. 2017 - Jan. 2018**   **Rayark Inc.**, Taipei, Taiwan  
*Project Intern*

- Designed game AI for a real-time strategy card game *Soul of Eden*
  - Designed a deep reinforcement learning model based on Asynchronous Actor-Critic Agents (A3C) algorithm without any expert data
  - Outperformed all of the rule-based models previously used by the company with win rate more than 80%
  - Integrated the deep reinforcement learning AI (written in *Python*) into the real game (written in *C#*)

**Jul. 2017 - Aug. 2017**   **Ministry of Science and Technology**, Taipei, Taiwan  
*Project Assistant*

- Helped organize *Formosa Grand Challenge*, the largest national AI competition in Taiwan, which was held by the Taiwan government
  - Attracted 100+ teams to participate in the competition
  - Designed a seq2seq with attention model for the baseline of the competition
  - Processed raw data collected from real world TV programs
  - Designed questions for the competition

## **Skills**

- **Programming Languages**  
Python, MATLAB, C/C++, Java
- **Machine Learning Frameworks**  
Tensorflow, Keras, PyTorch
- **Languages**  
Chinese, Taiwanese, English, Japanese
- **Development Tools**  
Git,  $\text{\LaTeX}$
- **Operating Systems**  
Windows, Linux