

# PIN-JUNG CHEN

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## EDUCATION

### Carnegie Mellon University, School of Computer Science

Aug. 2018 - Dec. 2019

Master of Computational Data Science (MCDS)

Pittsburgh, PA

- Coursework: Introduction to Computer Systems, Introduction to Machine Learning (PhD), Interactive Data Science

### National Taiwan University

Aug. 2013 - Jan. 2018

B.S. in Electrical Engineering | GPA: 3.99/4.3(3.88/4.0)

Taipei, Taiwan

- Honors & Awards: Dean's List (Spring 2014), Google Student Grants for ASRU 2017
- Coursework: Machine Learning\*, Artificial Intelligence\*, Intelligent Conversational Bot\*, The Design and Analysis of Algorithms\*, Computer Architecture, Data Structure and Programming (\*graduate-level courses)

## RESEARCH & WORK EXPERIENCES

### Vision and Learning Lab

Feb. 2017 - Jan. 2018

Undergraduate Researcher; Advisor: Prof. Yu-Chiang Frank Wang

National Taiwan University

- Proposed a unique architecture for joint learning of 3D models and associated disentangled features from single-view 2D images, which outperformed state-of-the-art methods by 9.9% in IoU in a weakly-supervised setting.
- Served as external reviewers for refereed papers for AAAI 2018.

### Speech Processing and Machine Learning Lab

Feb. 2016 - Jul. 2017

Undergraduate Researcher; Advisor: Prof. Hung-Yi Lee

National Taiwan University

- First to formulate the ASR errors in spoken dialog systems as a domain adaptation problem and proposed an original Dual-Encoder Sequence-to-Sequence model which outperformed the baseline by 45% in BLEU Score. [1]
- Developed a strong agent for a complex game, Bomberman, by combining supervised learning from human games, and deep reinforcement learning from self-play games.

### NVIDIA AI Technology Center (NVAITC)

Feb. 2017 - Jul. 2017

Intern

Taipei, Taiwan

- Worked on accelerating deep neural network training and inference on DGX-1.

## TEACHING EXPERIENCES

### Teaching Assistant, Machine Learning

Sep. 2017 - Jan. 2018

Instructor: Hung-Yi Lee

National Taiwan University

- A graduate-level course with 400 people.
- Group leader of the final project on Speech Recognition in Taiwanese.

### Teaching Assistant, Algorithm

Sep. 2017 - Jan. 2018

Instructor: Yu-Chiang Frank Wang

National Taiwan University

- Provided short lectures and office hours for students.

## SELECTED PROJECTS

### MusicBot, Intelligent Conversational Bot [Python, TensorFlow]

Feb. 2017 - Jun. 2017

- Built a neural dialog system for music playing and recommendation which allows multimodal interactions with users.

### Transfer Learning on Stack Exchange Tags, Machine Learning [Python, Gensim, Scikit-Learn, NLTK]

Jan. 2017

- Predicted tags of Stack Exchange questions on the unseen physics category by machine learning and NLP methods.
- Ranked 8 in a class of 240 people and top 25% among 380 teams on Kaggle measured by mean F1-score.

### NBA Analysis, Data Analytics [MySQL, Tableau]

Jan. 2016

- Crawled enormous amount of NBA data from basketball-reference.com to analyze and visualize advanced NBA stats.

## SKILLS

### Programming Languages

Python, C/C++, MATLAB, MySQL, Java

### Tools/Frameworks

Tensorflow, Keras, Git, L<sup>A</sup>T<sub>E</sub>X, LIBSVM, MapReduce, AWS

## PUBLICATION

- [1] **Pin-Jung Chen**, I-Hung Hsu, Yi-Yao Huang, and Hung-Yi Lee. "Mitigating the Impact of Speech Recognition Errors on Chatbot using Sequence-to-Sequence Model", in IEEE Workshop on Automatic Speech Recognition and Understanding (ASRU 2017), Okinawa, Japan, December 16-20, 2017. [link]