

Wei Fang

PHD STUDENT AT MIT CSAIL

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Research Interests

Natural language and speech processing, machine and deep learning, and artificial intelligence.

Education

PhD Student

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)

Cambridge, USA

Sep. 2018 - PRESENT

- Computer Science & Artificial Intelligence Laboratory (CSAIL), Advisor: Dr. James Glass

Bachelor of Science in Engineering

NATIONAL TAIWAN UNIVERSITY (NTU)

Taipei, Taiwan

Sep. 2013 - Jan. 2018

- Department of Electrical Engineering, GPA: 4.16/4.3

Experience

Spoken Language Systems Group, MIT CSAIL

RESEARCH ASSISTANT, SUPERVISED BY DR. JAMES GLASS

Cambridge, USA

Sep. 2018 - PRESENT

- Joined the SLS group as a first year PhD student.

Natural Language Processing Team, Apple Inc.

NLP INTERN

Cupertino, USA

Jul. 2018 - Aug. 2018

- Research internship on NLP Team.

Vision & Learning Lab, NTU & Academia Sinica

UNDERGRADUATE RESEARCHER, SUPERVISED BY PROF. YU-CHIANG FRANK WANG

Taipei, Taiwan

Jul. 2016 - Jan. 2018

- Proposed a deep learning architecture that incorporates knowledge graphs for multi-label zero-shot recognition. [CVPR-2018]
- Helped review conference papers for ICME 2017 and ICCV 2017.

Natural Language Processing Team, Apple Inc.

NLP INTERN

Cupertino, USA

Jun. 2017 - Sep. 2017

- Researched on input representations for neural networks to improve keyboard experience for users.

Speech Processing & Machine Learning Lab, NTU

UNDERGRADUATE RESEARCHER, SUPERVISED BY PROF. HUNG-YI LEE & PROF. LIN-SHAN LEE

Taipei, Taiwan

Sep. 2015 - Jun. 2017

- Proposed a hierarchical attention-based model for the TOEFL Listening Comprehension Test by machine. [SLT-2016]
- Researched on unsupervised audio word embeddings and helped develop a demo system.

National Taiwan University

TEACHING ASSISTANT

Taipei, Taiwan

Feb. 2016 - Jun. 2017

- EE5177/EE5184 Machine Learning (Fall 2016/Spring 2017) - Instructor: Prof. Hung-Yi Lee
- CSIE5610 Data Analytics & Modeling (Fall 2016) - Instructor: Prof. Biing-Hwang Juang (GaTech)
- EE2011 Signals and Systems (Spring 2016) - Instructor: Prof. Lin-Shan Lee

Publications

- [1] Chung-Wei Lee[†], **Wei Fang**[†], Chih-Kuan Yeh, Yu-Chiang Frank Wang. "Multi-Label Zero-Shot Learning with Structured Knowledge Graphs". In *IEEE Conference on Computer Vision & Pattern Recognition (CVPR)*, 2018. [\[link\]](#)
- [2] **Wei Fang**[†], Jui-Yang Hsu[†], Hung-Yi Lee, Lin-Shan Lee. "Hierarchical Attention Model for Improved Comprehension of Spoken Content". In *IEEE Workshop on Spoken Language Technology (SLT)*, 2016. [\[link\]](#)

[†] indicates equal contribution

Honors & Awards

EECS Great Educators Fellowship , MIT EECS	<i>Feb. 2018</i>
Dean's List (3 times) , NTU Electrical Engineering	<i>Fall '14, Spring '15, Fall '16</i>
Conference Grant , Foundation for the Advancement of Outstanding Scholarship	<i>Dec. 2016</i>
Winner of Smart Life Track (out of 160 teams), 2016 HackNTU Hackathon	<i>Aug. 2016</i>
2nd Place (out of 15 research projects), Undergraduate Innovation Award, NTU Electrical Engineering	<i>May 2016</i>
3rd Place (Problem B), CAD Contest 2015 at IEEE/ACM Int'l Conf. on Computer Aided Design (ICCAD)	<i>Nov. 2015</i>
6th Place (out of 250 teams), 2015 HackNTU Hackathon	<i>Aug. 2015</i>

Skills

Languages	Python, C++, Shell scripting, Lua, Matlab, Verilog
Libraries/Toolkits	PyTorch, Tensorflow, Torch
OS	GNU/Linux (Ubuntu & Arch Linux), Mac OSX
Other	Git, \LaTeX

Activities

Vice Director of Academic Department, Student Association of NTUEE	<i>Jun. 2015 - Sep. 2016</i>
<ul style="list-style-type: none">• Arranged academic activities such as talks, course selection, and workshops.• Co-organized the 1st MakeNTU, a hardware hackathon for NTUEE students in May 2016.	