

# TZU-MING HARRY HSU

2<sup>nd</sup> year Ph.D. Student, Computer Science and Artificial Intelligence Laboratory, MIT

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## EDUCATION

Ph.D. Student in Electrical Engineering Computer Science  
**Massachusetts Institute of Technology**

📅 Sep 2017 – Ongoing

📍 Cambridge, MA

B.S.E. in Electrical Engineering  
**National Taiwan University**

📅 Sep 2011 – Jun 2016

📍 Taipei, Taiwan

Class Rank: 1/190

GPA: 3.99/4.00

B.S. in Physics  
**National Taiwan University**

📅 Sep 2012 – Jun 2016

📍 Taipei, Taiwan

## PUBLICATIONS

### 👥 Conference Proceedings

- **3D-Aware Scene Manipulation via Inverse Graphics**  
Tzu-Ming Harry Hsu\*, Shunyu Yao\*, Jun-Yan Zhu, Jiajun Wu, Antonio Torralba, William T. Freeman, and Joshua B. Tenenbaum. NIPS 2018
- **Learning Food Quality and Safety using Wireless Stickers**  
Unsoo Ha, Yunfei Ma, Zexuan Zhong, Tzu-Ming Harry Hsu, and Fadel Adib. Hotnets 2018
- **Transfer Neural Trees for Heterogeneous Domain Adaptation**  
Wei-Yu Chen, Tzu-Ming Harry Hsu, Yao-Hung Hubert Tsai, and Yu-Chiang Frank Wang. ECCV 2016
- **Unsupervised Domain Adaptation With Imbalanced Cross-Domain Data**  
Tzu-Ming Harry Hsu, Wei-Yu Chen, Cheng-An Hou, Yao-Hung Hubert Tsai, Yi-Ren Yeh, and Yu-Chiang Frank Wang. ICCV 2015
- **Connecting the Dots Without Clues: Unsupervised Domain Adaptation for Cross-domain Visual Classification**  
Wei-Yu Chen, Tzu-Ming Harry Hsu, Cheng-An Hou, Yi-Ren Yeh and Yu-Chiang Frank Wang. ICIP 2015

## RESEARCH EXPERIENCE

Clinical Decision Making Group

**Prof. Peter Szolovits**

📅 Jul 2018 – Ongoing

📍 MIT CSAIL

- Unsupervised Alignment of Medical Radiology Data and Clinician Reports

Computer Vision Group

📅 Feb 2018 – June 2018

📍 MIT CSAIL

- 3D-aware Inverse-Graphics

## HIGHLIGHT



**Ranked #1 in IPhO**  
*International Physics Olympiad*  
2011 with 400+ participants



**2 years in Startup**  
*Bite! App with 50k users and 100k food diaries*

## STRENGTHS

Machine Learning

ML for Healthcare

Computer Vision

Signal Processing

## SKILLS

TensorFlow

PyTorch

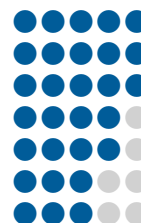
Docker

C/C++

MATLAB

Java

HTML/CSS/JS



## LEADERSHIP

MIT Taiwanese Student Association

**President**

📅 May 2018 – Ongoing

NTU Toastmasters Club

**Public Relations/Member Vice President**

📅 Mar 2014 – Feb 2015

## WORK EXPERIENCE

Digital Drift Corporation

**Lead Data Scientist**

📅 Mar 2016 – Ongoing

## RESEARCH EXPERIENCE (CONT'D)

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### Signal Kinetics Lab

**Prof. Fadel Adib**

📅 Sep 2017 – Jan 2018

📍 MIT Media Lab

- Mobile Localization in LTE Cellular Network
  - Food Quality and Content Detection with Wireless Signal
- 

### Multimedia and Machine Learning Lab

**Prof. Yu-Chiang Wang**

📅 Apr 2014 – Jun 2016

📍 Academia Sinica, Taiwan

- Unsupervised Domain Adaptation with Imbalanced Cross-domain Data
  - Deep Learning for Heterogeneous Domain Adaptation
- 

### Access IC Lab

**Prof. An-Yeu Andy Wu**

📅 Sep 2014 – Jun 2015

📍 NTU, Taiwan

- Noise Removal of Photoplethysmographic Signals
- 

### Laboratory for Applied Logic and Computation in System Design (ALCom Lab)

**Prof. Jie-Hong Roland Jiang**

📅 Jul 2013 – Jun 2014

📍 NTU, Taiwan

- Continuous-Time Mathematical Models for Neurons
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## AWARDS

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### Altera Innovate Asia FPGA Design Competition

**Silver Medal**

📅 2015

- Designed a custom PCB for music modulation and user sporting statistics
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### ICASSP Signal Processing Cup

**Tenth Place**

📅 2015

- Ranked 10th globally in heartbeat detection for sports
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### International Physics Olympiad (IPhO)

**First Place Overall, in Theory, and in Experiment**

📅 2011

- Ranked 1st in both theory section and experiment section among 401 international representatives from over 80 countries
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### International Junior Science Olympiad (IJSO)

**Gold Medal**

📅 2008

- Ranked top 10% among 300 international representatives from over 60 countries