

# TZU-MING HARRY HSU

Computer Science and Artificial Intelligence Laboratory, MIT

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## 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. In: *NIPS 2018*
- **Learning Food Quality and Safety using Wireless Stickers.**  
Unsoo Ha, Yunfei Ma, Zexuan Zhong, Tzu-Ming Harry Hsu, and Fadel Adib. In: *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. In: *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. In: *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. In: *ICIP 2015*

## RESEARCH EXPERIENCE

### Clinical Decision Making Group

Prof. Peter Szolovits

Jul 2018 – Ongoing MIT CSAIL

- Unsupervised Machine Learning for Healthcare

### Computer Vision Group

Feb 2018 – June 2018 MIT CSAIL

- 3D-aware Inverse-Graphics

### 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

## 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

Deep Learning Medical AI  
Computer Vision Machine Learning  
Signal Processing

## SKILLS

TensorFlow  
PyTorch  
Docker  
C/C++  
MATLAB  
Java  
HTML/CSS/JS



## EDUCATION

Ph.D. Student in Computer Science  
Massachusetts Institute of Technology

Sep 2017 – Ongoing

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

Sep 2011 – Jun 2016

Class Rank: 1/190

GPA: 3.99/4.00

B.S. in Physics  
National Taiwan University

Sep 2012 – Jun 2016

# RESEARCH EXPERIENCE

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

# AWARDS

Altera Innovate Asia FPGA Design Competition

Silver Medal

📅 2015

- Designed a custom PCB for music modulation and user sporting statistics

ICASSP Signal Processing Cup

Tenth Place Worldwide

📅 2015

- Ranked 10th globally in sports heartbeat detection

International Physics Olympiad (IPhO)

First Place Worldwide

📅 2011

- Ranked 1st in both theory section and experiment section among 401 national representatives from senior high schools of over 80 countries

International Junior Science Olympiad (IJSO)

Gold Medal

📅 2008

- Ranked top 10% among 300 national representatives from junior high schools of over 60 countries

# 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