## 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
  - 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**

H 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**

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
- 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

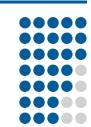
**Computer Vision** 

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