TZU-MING HARRY HSU

Ph.D. Student, Computer Science and Artificial Intelligence Laboratory, MIT

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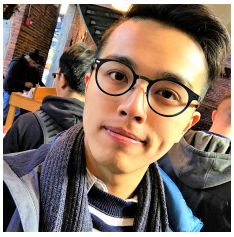

EDUCATION

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

Journals

- **Transfer Neural Trees: Semi–Supervised Heterogeneous Domain Adaptation and Beyond**
  TWei–Yu Chen, Tzu–Ming Harry Hsu, Yao–Hung Hubert Tsai, Ming–Syan Chen, and Yu–Chiang Frank Wang.
  IEEE Transactions on Image Processing (TIP)

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.
  NeurIPS 2018
- **Unsupervised Multimodal Representation Learning across Medical Images and Reports**
  Tzu–Ming Harry Hsu, Wei–Hung Weng, Willie Boag, Matthew McDermott, and Peter Szolovits . ML4H, NeurIPS 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

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

Computer Vision | ML for Healthcare | Machine Learning | Signal Processing

SKILLS

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

LEADERSHIP

MIT Taiwanese Student Association

President

May 2018 – April 2019

NTU Toastmasters Club

Public Relations/Member Vice President

Mar 2014 – Feb 2015

WORK EXPERIENCE

Google AI

Research Intern

Jun 2019 – Aug 2019

Digital Drift Corporation

Lead Data Scientist

Mar 2016 – Jul 2017

Ministry of National Defense, Taiwan

Military Service

Jul 2016 – Jun 2017

RESEARCH EXPERIENCE

Google AI
Dr. Matthew Brown

Jun 2019 – Aug 2019 | Google Seattle

Clinical Decision Making Group (MEDG)
Prof. Peter Szolovits

Jul 2018 – Ongoing | MIT CSAIL

- Beyond Full Supervision for Uncovering Underlying Structure of Medical Radiology Data and Clinician Reports

Computer Vision Group
Feb 2018 – June 2018 | MIT CSAIL

- Use 3D–aware Vision as Inverse–graphics for Image Editing

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

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

2015

- Ranked 10th globally in heartbeat detection for sports

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

International Junior Science Olympiad (IJSO)
Gold Medal

2008

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