

# CHING-YAO CHUANG

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## RESEARCH INTERESTS

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Machine Learning and Computer Vision

## EDUCATION

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**National Tsing Hua University, Hsinchu, Taiwan**

*Sep. 2013 - Jun. 2017*

B.Sc. in Electrical Engineering

Advised by Prof. Min Sun, Overall GPA: 3.98/4.3, Major GPA: 4.08/4.3

## PROFESSIONAL EXPERIENCE

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**Machine Learning Group, University of Toronto**

Toronto, Canada

*Visiting Student*

*Aug. 2017 - Present*

- Advised by Prof. Sanja Fidler
- Graph Neural Network for Context Understanding
- Deep Reinforcement Learning for Target-driven Indoor Navigation

**Vision Science Lab, National Tsing Hua University**

Hsinchu, Taiwan

*Research Assistant (RA)*

*Sep. 2015 - Present*

- Advised by Prof. Min Sun
- Adversarial Learning for Vision & Language
- Video Question Answering

**Industrial Technology Research Institute (ITRI)**

Hsinchu, Taiwan

*AI Internship*

*Mar. 2016 - May. 2017*

- Advised by Dr. Dong-Chen Tsai
- Deep Reinforcement Learning Algorithm Implementation
- Robotics Control and Learning

**Umbo CV Inc.**

Taipei, Taiwan

*CV/ML Internship*

*2016 summer*

- Advised by Dr. Ping-Lin Chang
- Visual Question Answering

## PUBLICATION

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**Learning to Act Properly: Predicting and Explaining Affordances from Images**

*Computer Vision and Pattern Recognition Conference (CVPR), 2018.*

**Ching-Yao Chuang**, Jiaman Li, Antonio Torralba and Sanja Fidler

**Show, Adapt and Tell: Adversarial Training of Cross-domain Image Captioner**

*International Conference on Computer Vision (ICCV), 2017.*

Tseng-Hung Chen, Yuan-Hong Liao, **Ching-Yao Chuang**, Wan-Ting Hsu, Jianlong Fu and Min Sun

**Leveraging Video Descriptions to Learn Video Question Answering**

*The Thirty-First Conference on Artificial Intelligence (AAAI), 2017.*

Kuo-Hao Zeng, Tseng-Hung Chen, **Ching-Yao Chuang**, Yuan-Hong Liao, Juan Carlos Niebles and Min Sun

## SELECTED PROJECTS

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### **Winner of THOR Challenge with Deep Reinforcement Learning, CVPR 2017**

*CVPR 2017 Workshop on Visual Understanding Across Modalities, 2017.*

**Ching-Yao Chuang**, Sanja Fidler and Min Sun

### **Photo Optimizing Adversarial Net with Policy Gradient Method**

*Course Project for Cutting Edge of Deep Learning, NTHU (Fall 2016).*

### **Video Object Detection using Faster R-CNN**

*Winner of Best Project, Course Project for Introduction to Multimedia, NTHU (Spring 2016).*

## AWARDS AND HONORS

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First Place, THOR challenge in CVPR-2017 Workshop	<i>Jul. 2017</i>
Outstanding Project Award in Contest of Special Topics on Implementation, NTHU	<i>Feb. 2017</i>
Excellent Student Scholarship of EECS College, NTHU	<i>May. 2016</i>
National Tsing Hua University International Volunteer Certification	<i>Jun. 2015</i>
Deans List Award, National Tsing Hua University	<i>Feb. 2014</i>

## TEACHING EXPERIENCE

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### **Teaching Assistant at National Tsing Hua University for:**

- EE 361002 Signal and Systems, Spring 2017, Instructor: Min Sun

### **Lecturer at Industrial Technology Research Institute for:**

- Deep Reinforcement Learning Tutorial, Fall 2016

## LEADERSHIP EXPERIENCE

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<b>Student Association, Department of Electrical Engineering, NTHU</b>	Hsinchu, Taiwan
<i>Academic Director</i>	<i>Sep. 2015 - Jun. 2016</i>

- Organized academic events
- Cooperated with technology Co.

### **Belize Educational Service Group, NTHU**

*Public Relations Manager*

Cayo, Belize  
*Sep. 2014 - Nov. 2015*

- Provided computer education and services to Belize children
- Solicited and Managed sponsorship

## SKILLS

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<b>Language</b>	English (TOEFL 107, GRE 323), Chinese (Native)
<b>Programming Language</b>	Python, C/C++, Java, Matlab, Lua, JavaScript, HTML, $\text{\LaTeX}$
<b>Frameworks</b>	Tensorflow, PyTorch, Torch, Caffe
<b>Engineering Tools</b>	HPICE, Verilog