

# Shih-Han Chou

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Graduate student on electrical engineer.

Passionate about natural language processing, computer vision, robotics and artificial intelligence.

## Education

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### Academic Qualifications.....

- **National Tsing Hua University** **Hsinchu, Taiwan**  
*Electrical Engineering, Master student in ACS (automatic control and signal) Lab* *2014–2017*  
GPA: 4.1/4.3
- **RWTH AACHEN University** **Aachen, Germany**  
*Electrical Engineering, An exchange student for one semester.* *2016–2017*
- **National Sun Yat-Sen University** **Kaohsiung, Taiwan**  
*Mechanical and Electromechanical Engineering,* *2011–2014*  
GPA: 3.8/4.0 (overall); 3.8/4.0 (major); 3.9/4.0 (last-60)  
Rank: Top 7.4 (4th/54)
- **National Changhua University of Education** **Changhua, Taiwan**  
*Mechatronics Engineering,* *2010–2011*  
Transfer to National Sun Yet-Sen University at September 2011.

### Publications.....

#### Conference

- **Shih-Han Chou**, Yi-Chun Chen, Kuo-Hao Zeng, Ho-Ning Hu, Jainlong Fu, Min Sun, "Self-view Grounding Given a Narrated 360° Video", *AAAI'18*
- Kuo-Hao Zeng, **Shih-Han Chou**, Fu-Hsiang Chan, Juan Carlos Nieves, Min Sun, "Agent-Centric Risk Assessment: Accident Anticipation and Risky Region Localization", *CVPR'17*, **spotlight**.

#### Workshop

- **Shih-Han Chou**, Yi-Chun Chen, Kuo-Hao Zeng, Ho-Ning Hu, Jainlong Fu, Min Sun, "Self-view Grounding Given a Narrated 360° Video", *ICCV'17 - Workshop on Closing the Loop Between Vision and Language*.

#### Master Thesis

- **Shih-Han Chou**, Wei-Yu Chen, Bor-Sen Chen, "Multiobjective Design for Joint Precoding and Equalization of MIMO OFDM Systems with simultaneous post-detection SINR Maximization and Power Consumption Minimization". *Master thesis (under submission)*

### Research Experience.....

#### ○ Vision Science Lab

360° Video grounding, storytelling (2017 - present)  
Accident anticipation (2017)

#### ○ Automatic Control and Signal Lab

Robust control and  $H_\infty$  control in wireless communication (2014 - 2017)

- **Bio-Medical Micro Electro Mechanical Systems Lab**

The correlation between Heart Rate Variability and Apnea-Hypopnea Index is BMI dependent (2014)

The relation between vertical ground reaction force and heart rate during treadmill running (2013 - 2014)

## Notable Projects.....

- **Computer Vision for Visual Effects** *Term Project*

<https://sites.google.com/site/computervisionvisualeffectsg11/home>

- **Image Processing** *Final Project*

GUI for Image processing and Image Compression implementation.

## Honors and Awards

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- **NSYSU Undergraduate Outstanding Reports of Special Project (2013)**

Topic: Estimating the relation between vertical ground reaction force and heart rate with different exercising strength during treadmill running.

## Previous Employment

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- **Research Assistant**

- *Vision Science Lab (National Tsing Hua University)*

**Hsinchu, Taiwan**

*June 2017–present*

- **MediaTek Summer Intern**

- *MediaTek*

**Hsinchu, Taiwan**

*July 2014–August 2014*

- **HIWIN Summer Intern**

- *HIWIN*

**Taichung, Taiwan**

*July 2013–August 2013*

- **Receptionist in The 43th International Symposium on Robotics**

- *International Symposium on Robotics*

**Taipei, Taiwan**

*28, August 2012–30, August 2012*

- **HIWIN Summer Intern**

- *HIWIN*

**Taichung, Taiwan**

*July 2012–August 2012*

## Technical and Personal skills

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- **Programming Languages:** C, C++, Python, Matlab,  $\LaTeX$

- **Machine (Deep) Learning Platform:** PyTorch, Caffe, SciPy, OpenCV, LIBSVM

## Interests

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- Computer Vision + Machine Learning

- Computer Vision + Natural Language

- Computer Vision + Robotics