

# NING-HSU WANG

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## ABOUT ME

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A master/research student at NTHU, Vision Science Lab (VSLab) advised by Prof. Min Sun.

Research Interest: Computer Vision, Machine Learning, Deep Learning

Current Research Topics: Computer Vision, Stereo Matching, Depth Estimation, 3D Reconstruction

## EDUCATION

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**National Tsing Hua University**

*January 2018 - Present*

Master in Electrical Engineering

**GPA: 4.3/4.3**

**National Chiao Tung University**

*Sep 2013 - June 2017*

Bachelor in Mechanical Engineering

**GPA: 3.41/4.0, Last 60: 3.67/4.0, Ranking: 13/49, 25/99**

## PUBLICATIONS

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**360SD-Net: 360° Stereo Depth Estimation with Learnable Cost Volume**

- **Ning-Hsu Wang**, Bolivar Solarte, Yi-Hsuan Tsai, Wei-Chen Chiu, Min Sun

- International Conf. on Computer Vision 2019 (ICCV 2019) Workshop, **Spotlight**

## EXPERIENCE

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

*January 2018 - Present*

*Research Student*

- 360° Stereo Depth Estimation

**Young Entrepreneurs of the Future, Epoch Foundation**

*January 2018 - July 2018*

*Participant*

- YEF Garage Party (Second Place), YEF Elevator Pitch, YEF Workshop

**Atos**

*August 2017*

*On-site Engineer*

- Internet System Maintenance

**Tokyo Electron Limited Robot Combat**

*2017*

*Participant*

**Programming Education Product Sales**

*2014 - 2016*

*Part Time Sales*

- Taipei International Automation Exhibition Sales

- Department Store Clerk

**NCKU Badminton Open**

*2015, 2017, 2018*

**CSL (College Sports League) Badminton Competition, Mechanical Engineering** 2014-2016

**CSL Badminton Competition, Mechanical Engineering, Northern Taiwan** 2013-2016

**Hsinchu District Badminton Competition** 2015

*Umpire and Service Judge*

**University System of Taiwan, Badminton Invitation Competition**

*2014*

*Website Management and Promotion*

**NCTU Department Badminton Team**

*2013-2017*

**NCTU Piano Club**

*2014-2017*

**NCTU Guitar Club**

*2013*

## PROJECTS

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- 360° Stereo Depth Estimation and 3D Reconstruction** *January 2018 - Present*
- Python
  - Deep Learning Application on Pytorch
- Design of Logistic UAV (Unmanned Aerial Vehicle)** *2017*
- UAV Surveillance
  - Wireless Unloading Motor Control
  - Unloading Mechanism Design
  - Body Design
- Implementation of *The Lambda Method for Integer Ambiguity Estimation*** *2016*
- Matlab Simulation
- Object Searching Robot Design** *2016*
- Labview
  - Ultrasonic Avoidance Design
  - Image Processing
  - Motor Control

## ABILITIES AND CERTIFICATIONS

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<b>Programming</b>	<b>C/C++, Python, Assembly, HTML, CSS</b>
<b>DL Framework</b>	<b>Pytorch, TensorFlow</b>
<b>Software &amp; Tools</b>	Industrial Control & Simulation: <b>Labview</b> Mathematics Simulation: <b>Matlab</b> Electrical Circuit Simulation: <b>LTSpice</b> Computational Fluid Dynamics Simulation: <b>ANSYS-Fluent</b> Computer-aided Design Drafting Software: <b>AutoCAD, Solidworks</b>
<b>Hardware</b>	<b>Arduino, 8051</b>
<b>Misc.</b>	<b>OpenCV, Github, Vim, Linux, L<sup>A</sup>T<sub>E</sub>X</b>
<b>Language</b>	<b>Fluent in Mandarin (Native)</b> <b>Proficient in English, TOEIC Golden Certification (Score: 900)</b> Elementary Proficiency in Japanese (4 semester)

## AWARDS

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- International Conf. on Computer Vision 2019 (ICCV 2019) 360 PI Workshop *2019*
- ***Spotlight Paper***
  - **360SD-Net: 360° Stereo Depth Estimation with Learnable Cost Volume**
- Young Entrepreneurs of the Future Garage Party, Epoch Foundation *2018*
- *Second Place*
- CSL Badminton Competition, Mechanical Engineering *2016*
- *Team Competition, Third Place*
- CSL Badminton Competition, Mechanical Engineering, Northern Taiwan *2015*
- *Team Competition, Third Place*
- NCTU Sports Competition, Shot put *2016*
- *Fourth Place*
- The Best High School Service Team of Taipei *2012*