

# Ren Wang

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## EDUCATION

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- **National Taiwan University**, Taipei, Taiwan 2021–present
  - Ph.D. student in Computer Science and Information Engineering
  - Advisor: Yung-Yu Chuang
- **National Tsing Hua University**, Hsinchu, Taiwan 2013–2015
  - M.S. in Computer Science
  - Advisor: Hwann-Tzong Chen
- **National Tsing Hua University**, Hsinchu, Taiwan 2009–2013
  - B.S. in Computer Science

## WORK EXPERIENCE

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- **MediaTek Inc.**, Hsinchu, Taiwan
  - Senior Engineer at Multimedia Technology Development Div. 06/2020–present
  - Engineer at Multimedia Technology Development Div. 02/2018–05/2020
  - Engineer at Advanced Communication Technology Div. 12/2015–01/2018

## SELECTED PROJECTS

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- **Artificial Intelligence on Noise Reduction**, MediaTek 2017–2022
  - Achievements*
    - This project landed on 25 smart phones from June 2019 to Feb 2022. The clients included OPPO, vivo, Xiaomi, realme, and OnePlus.
  - Responsibilities*
    - Applied cutting-edge AI techniques to noise reduction on MediaTek's image signal processors.
    - Optimized neural networks to reduce the computational and memory cost on MediaTek's deep learning accelerators.
    - Collaborated closely with several relevant projects, including image enhancement, demosaicing, and HDR.
- **Activity and Gesture Recognition**, MediaTek 2016–2017
  - Achievements*
    - This project landed on Helio X30 during 2017. The client was Meizhu.
  - Responsibilities*
    - Did research on applying AI techniques to gesture recognition using MEMS sensors.
    - Implemented statistical models, including SVM, GMM, and HMM.

## PUBLICATIONS

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- **Bridging Unsupervised and Supervised Depth from Focus via All-in-Focus Supervision** ICCV 2021  
Ning-Hsu Wang, Ren Wang, Yu-Lun Liu, Yu-Hao Huang, Yu-Lin Chang, Chia-Ping Chen, Kevin Jou  
*Proc. IEEE International Conference on Computer Vision*, 2021
- **Explorable Tone Mapping Operators** ICPR 2020  
Chien-Chuan Su, Ren Wang, Hung-Jin Lin, Yu-Lun Liu, Chia-Ping Chen, Yu-Lin Chang, Soo-Chang Pei  
*Proc. International Conference on Pattern Recognition*, 2021
- **Learning Camera-Aware Noise Models** ECCV 2020  
Ke-Chi Chang, Ren Wang, Hung-Jin Lin, Yu-Lun Liu, Chia-Ping Chen, Yu-Lin Chang, Hwann-Tzong Chen  
*Proc. European Conference on Computer Vision*, 2020

## PATENT

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- **Methods and Apparatuses of Depth Estimation from Focus Information** Feb 2022  
Ren Wang, Yu-Lun Liu, Yu-Hao Huang, Ning-Hsu Wang  
U.S. Patent Application 17/677,365, filed Feb 2022

## HONORS

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- **MediaTek vAward** (12 times) 2015–2021
  - Awarded for excellent individual or team performance.
- **MediaTek Project Award** July 2020
  - Awarded for contributions to the Dimensity 1000 project.
- **Valedictorian**, NTHU CS June 2013
  - Delivered a farewell speech at the graduation ceremony.
- **Finalist of the Senior Project Contest**, NTHU CS Oct 2012
  - Awarded for a mobile augmented reality (AR) game.

## TEACHING EXPERIENCE

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- **Teaching Assistant**, National Tsing Hua University
  - ISA 525700: Computer Vision for Visual Effects Spring 2015
  - EECS 111000: Introduction to Programming (C language) Fall 2013, 2014
  - CS 321100: Introduction to Communication Fall 2014

## TECHNICAL SKILLS

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- Python, C/C++, Git, TensorFlow, scikit-learn, OpenCV