

Ren Wang

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Education

- **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

- **MediaTek Inc.**, Hsinchu, Taiwan
 - Senior Engineer at Multimedia Technology Development Div. Jun. '20-present
 - Engineer at Multimedia Technology Development Div. Feb. '18-May. '20
 - Engineer at Advanced Communication Technology Div. Dec. '15-Jan. '18

Selected Projects

- **Artificial Intelligence on Noise Reduction**, MediaTek 2017-2022

This project landed on 24 smart phones from Jun. 2019 to Feb. 2022.
The clients included OPPO, vivo, Xiaomi, realme, and OnePlus.

 - 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

This project landed on Helio X30 during 2017. The client was Meizhu.

 - Did research on applying AI techniques to gesture recognition using MEMS sensors.
 - Implemented statistical models, including SVM, GMM, and HMM.

Publications

- **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, 2020

- **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

- **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

- **MediaTek vAward** (12 times)

2015-2021

- Awarded for excellent individual or team performance.

- **MediaTek Project Award**

Jul. 2020

- Awarded for contributions to the Dimensity 1000 project.

- **Valedictorian**, NTHU CS

Jun. 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

- **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

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