

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

Achievements

 - This project landed on 25 smart phones from Jun. 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

- **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