Ren Wang

Email: renwang@cmlab.csie.ntu.edu.tw
Homepage: https://renwang0508.github.io
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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 24 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, <u>Ren Wang</u>, 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, <u>Ren Wang</u>, 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, <u>Ren Wang</u>, 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
  <u>Ren Wang</u>, 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