Tsung-Han Wu

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Education

National Taiwan University (NTU) *Sep.2020 – Jun.2022*
M.S. in Computer Science
- **Lab:** Communications and Multimedia Laboratory (CMLab), Advisor: Prof. Winston H. Hsu
- **Thesis:** Active Learning for Semantic Segmentation: Region Diversity and Dynamic Domain Density
- **Honors:** 2022 IPPR Outstanding MS Thesis Award, 2021 Foxconn Technology Award

National Taiwan University (NTU) *Sep.2016 – Jun.2020*
B.S. in Computer Science
- **GPA:** overall: 4.18/4.3, major: 4.24/4.3, graduate ranking: **6/117 (5%)**
- **Honors:** Dean's List Award * 3 (F'16, S'17, F'19)
- **Activities:** Leader of Academic Department in NTU CS Student Association (2018 – 2019)

Research Experience

Research Assistant *Aug.2022 – Present*
Advisor: Prof. Shang-Tse Chen & Winston H. Hsu (NTU)
- Researched on reaching **Fairness and Adversarial Robustness** with limited labeled data.

Graduate Researcher *Sep.2020 – Jul.2022*
Advisor: Prof. Winston H. Hsu (CMLab, NTU)
- Researched on **Active Learning/Active Domain Adaptation** for **Semantic Segmentation**. [ICCV'21, ECCV'22]
- Researched on **Image-based 3D Object Detection** with depth guidance. [CVPR'22]

Undergraduate Researcher *Sep.2018 – Nov.2020*
Advisor: Prof. Winston H. Hsu (CMLab, NTU)
- Researched on improving the quality and structure of **Depth Completion**. [ICCVW'19]
- Researched on boosting **Stereo Matching** and **Depth Estimation** with sparse signal guidance. [CVPR'21]

Publications (* indicates equal contribution.)

- **Tsung-Han Wu**, Yi-Syuan Liou, Shao-Ji Yuan, Hsin-Ying Lee, Tung-I Chen, Kuan-Chih Huang, Winston H. Hsu. "D2ADA: Dynamic Density-aware Active Domain Adaptation for Semantic Segmentation". **ECCV** 2022.
- Kuan-Chih Huang, **Tsung-Han Wu**, Hung-Ting Su, Winston H. Hsu. "MonoDTR: Monocular 3D Object Detection with Depth-Aware Transformer". **CVPR** 2022.
- **Tsung-Han Wu**, Yueh-Cheng Liu, Yu-Kai Huang, Hsin-Ying Lee, Hung-Ting Su, Ping-Chia Huang, Winston H. Hsu. "ReDAL: Region-based and Diversity-aware Active Learning for Point Cloud Semantic Segmentation". **ICCV** 2021.
- Yu-Kai Huang, Yueh-Cheng Liu, **Tsung-Han Wu**, Hung-Ting Su, Yu-Cheng Chang, Tsung-Lin Tsou, Yu-An Wang, Winston H. Hsu. "S3: Learnable Sparse Signal Superdensity for Guided Depth Estimation". **CVPR** 2021.
- Yu-Kai Huang*, **Tsung-Han Wu***, Yueh-Cheng Liu, Winston H. Hsu. "Indoor Depth Completion with Boundary Consistency and Self-Attention". **ICCVW** 2019.

Teaching and Work Experience

Teaching Assistant *2019, 2020 Spring*
CS2311: Network Administration and System Administration, NTU
Instructor: Prof. Hsin-Mu Tsai
- **Lab Lecturer**: Teach shell script, system partition, file system and Linux kernel. Develop two programming assignments. Won the Best Teaching Assistant Awards in the EECS department. (2019 Spring)
- **Head of TAs**: Assist in course syllabus planning and lead the TA team to complete all in-class lab teaching, assignments, and exams. (2020 Spring)

System Administrator [Certificate Link] *Feb.2018 – Jun.2020*
Department of Computer Science and Information Engineering (CSIE), NTU
Supervisor: Prof. Hsin-Mu Tsai

- **Head of Mail Services**: Maintain mail servers for all students, and faculties in the department. Automate system deployment with open-source tools. (2018 – 2019)
- **SysAdmin Team Leader**: Lead the team to improve the backup and monitoring services. Plan and execute the data center relocation project of the CS department. (2019 – 2020)

Data Scientist Intern *Jul.2019 – Aug.2019*
ASUS, AICS Team

- Develop a denoising and rectification toolkit to boost OCR performance on printing paper.
- Implement an object detection model on private datasets.

Honors and Awards

Conference Reviewers, at CVPR, ECCV, BMVC, ICMR *Apr.2021 – Present*
IPPR Outstanding MS Thesis Award (Top 3 Computer Vision Master's Thesis in Taiwan) *Aug.2022*
Foxconn Technology Award (Top 19 applied students in Taiwan, 250K NTD scholarship) *Dec.2021*
Best Teaching Assistant Awards, at NTU EECS *Spring'19*
Dean's List Award, at NTU CSIE (For top 5% students); 3x Recipient *Fall'16, Spring'17, Fall'19*

Skills

Languages: Experienced in C, Python and capable of C++. Fluent in Tensorflow, PyTorch and Scikit-Learn.
System administration: Git, Linux, Ansible, QEMU-KVM and Docker.

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