

Ching-Yu Tseng

AI Researcher
M.Sc. in NTU

National Taiwan University

Taipei City, Taiwan

Email: cytseng@cmlab.csie.ntu.edu.tw

Website: <https://sty61010.github.io/>

[GitHub](#) [Linkedin](#) [Google Scholar](#)

Research Interest

3D/2D Computer Vision, Machine Learning, Autonomous Driving

Ching-Yu is a graduate research assistant at Communication & Multimedia Lab, National Taiwan University (NTU), supervised by Prof. [Winston H. Hsu](#). His research focuses on Machine Learning and 3D Computer Vision. He has won the top 3rd in the top conference NIPS2021. Recently, he has been working on camera-based perception for autonomous driving.

Publication

CrossDTR: Cross-view and Depth-guided Transformers for 3D Object Detection / Under Submission [[paper](#)] [[code](#)] [[project page](#)][[video](#)]

Ching-Yu Tseng, Yi-Rong Chen, Hsin-Ying Lee, Tsung-Han Wu, Wen-Chin Chen, Winston H. Hsu

3rd Place Solution for NeurIPS 2021 Shifts Challenge: Vehicle Motion Prediction / NIPS2021 Competition [[paper](#)][[competition](#)][[video](#)]

Ching-Yu Tseng, Po-Shao Lin, Yu-Jia Liou, Kuan-Chih Huang, Winston H. Hsu

Learning from 2D: Contrastive Pixel-to-Point Knowledge Transfer for 3D Pretraining / Arxiv [[paper](#)]

Yueh-Cheng Liu, Yu-Kai Huang, Hung-Yueh Chiang, Hung-Ting Su, Zhe-Yu Liu, Chin-Tang Chen, Ching-Yu Tseng, Winston H. Hsu

Education

National Taiwan University / Master of Science (Sep. 2021 - Present)

Major in Computer Science and Information Engineering

Advisor: [Winston H. Hsu](#)

- Research Topic: Camera-based Perception of Autonomous Driving
- Overall GPA: 4.08/4.3

National Tsing Hua University / Bachelor of Science (Sep. 2017- Jun. 2021)

Major in Computer Science

Advisor: [Shan-Hung Wu](#)

- Research Topic: Defense of Adversarial Attack on Image Classification
 - College Student Research Scholarship, MOST.
- Rank: top 11%; Overall GPA: 4.02/4.3; Academic Award: 2017, 2021.

Work Experience

National Taiwan University / UNIX System Administrator (Feb. 2022 - Oct. 2022)

Advisor: [Winston H. Hsu](#)

- Unix Manager of Communication & Multimedia Lab, National Taiwan University.

Shanghai Jiao Tong University / Visiting Researcher (July 2018 - Sep. 2018)

Advisor: [Hong-Tao Lu](#)

- Face Detection and Recognition Embedding System:
 - Develop an embedding system for face recognition for lab members at SJTU.

Teaching Experience

National Tsing Hua University / Teaching Assistant (Feb. 2020- Jun. 2020)

Course: [CS241001 Software Design and Studio](#)

Advisor: [Shan-Hung Wu](#)

- Teach students to build personal websites with React framework.
- Teach students to utilize databases such as MongoDB and MySQL.

Honors & Awards

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- Third Place, **NIPS2021 Competition** (2021)
 - [NeurIPS 2021 Shifts Challenge: Vehicle Motion Prediction](#)
 - College Student Research Scholarship, **Ministry of Science and Technology** (2020)
 - Research scholarship from **Ministry of Science and Technology**.
 - First Place, Kaggle Competition in CS5656 Deep Learning (2020)
 - Deep Learning Competition in Department of Computer Science, **National Tsing Hua University**
 - Summer Oversea Experience Scholarship (2018)
 - Exchange program to **Shanghai Jiao Tong University** for visiting researcher.
 - Academic Award 2 times in **National Tsing Hua University** (2017, 2021)
 - top 5% of students in the class with the highest GPA.

Skills

Programming: C/C++, Python, Unity, Matlab, Javascript, HTML, CSS.

Languages: English(fluent, **TOEFL 91/120**, **TOEIC 815/990**), Chinese(native).

Libraries/Tools: PyTorch, OpenCV, Open3D, MMDetection3D, Scikit-learn, LaTeX.