

Hung-Yueh Chiang

Email : hungyueh.chiang@gmail.com | Mobile: +1512.825.9352 | [Webpage](#) | [Github](#) | [LinkedIn](#) | [Google Scholar](#)

Career

Research Scientist Intern, Amazon, Seattle (Remote), USA

May 2022 – Nov. 2022

- Image synthesis and generation for shoe virtual try-on with diffusion models
- The work, *Shoe-ViTOn: Detail-Preserving Virtual Shoe Try-On with Dual Conditional Diffusion Models*, is accepted in Amazon Machine Learning Conference (AMLC) as a long presentation

XYZ Robotics, Shanghai

Jun. 2019 - May 2021

- Proposed a multi-modal (image, depth, and normal) to improve 2D segmentation network's accuracy of best robot picking area (mIoU from 85% to 91%)
- Leveraged synthetic training data in Blender to improve the accuracy of best robot picking area (mIoU from 41.38% to 76.62%) for unseen items.
- Developed deep learning services (segmentation/object detection) in Robot Operating System (ROS) in products

Skills and Tools

Programming language: C/C++ (Boost, PCL, OpenCV, OpenNI), Python (Numpy, Matplotlib, PyQt, Tkinter)

Learning framework: Tensorflow, Pytorch (Python and C++), MXNet, ONNX

Tools: Linux, Git, Google Test, Google Log, CMake, Pylint, Clang-format, yapf, Blender

Education

The University of Texas at Austin

Sep. 2021 – 2025 (anticipated)

Ph.D. in Electrical and Computer Engineering

Affiliation: Energy-Aware Computing Group (EnyAC)

Research Direction: Edge AI / Network Quantization / Neural Architecture Search

Advisor: Prof. Diana Marculescu

National Taiwan University

Sep. 2016 - Sep. 2018

M.S. in Computer Science and Information Engineering (GPA: 3.87/4.3)

Affiliation: NVIDIA-NTU AI Lab

Thesis: A Unified Point-Based Framework for 3D Segmentation (Top performing on ScanNet in 2018)

Advisor: Prof. Winston Hsu

ETH Zurich

Jan. 2015 - Sep. 2015

Undergraduate Exchange Program

Affiliation: Computer Vision and Geometry Group (CVG)

Undergrad Research Project: Investigate image-based 3D reconstruction methods

Advisor: Prof. Marc Pollefeys

National Yang Ming Chiao Tung University

Sep. 2011 - Sep. 2015

B.S. in Computer Science Elite Program (GPA: 4.08/4.3)

Honors and Awards

- Engineering Fellowship from The University of Texas at Austin Graduate School, 2021
- Second Place at ScanNet benchmark and invited talk at CVPR 2019

Selected Publications

- *MobileTL: On-device Transfer Learning with Inverted Residual Blocks*. **Hung-Yueh Chiang**, Natalia Frumkin, Feng Liang, and Diana Marculescu, AAAI 2023
- *FOX-NAS: Fast On-device and Explainable Neural Architecture Search*. Chia-Hsiang Liu, Yu-Shin Han, Yuan-Yao Sung, Yi Lee, **Hung-Yueh Chiang**, Kai-Chiang Wu, ICCVW 2021
- *A Unified Point-based Framework for 3D Point Cloud Segmentation*. **Hung-Yueh Chiang**, Yen-Liang Lin, Yueh-Chen Liu, Winston Hsu. 3DV 2019
- *Learning from 2D: Pixel-to-Point Knowledge Transfer for 3D Pretraining*. Yueh-Cheng Liu, Yu-Kai Huang, **Hung-Yueh Chiang**, Hung-Ting Su, Zhe-Yu Liu, Chin-Tang Chen, Ching-Yu Tseng, and Winston Hsu, Arxiv 2021
- *Cross-Domain Image-Based 3D Shape Retrieval by View Sequence Learning*. Tang Lee, Yen-Liang Lin, **Hung-Yueh Chiang**, Ming-Wei Chiu, Winston Hsu. 3DV 2018 (Oral)