

Zhi-Yi Chin (Joyce)

CONTACT INFORMATION	joycenerd.cs09@nycu.edu.tw +886972752710 https://joycenerd.github.io	
EDUCATION	National Yang Ming Chiao Tung University Master in Computer Science and Engineering Expected graduation date: August, 2023 National Chung Cheng University Bachelor in Computer Science and Information Engineering Overall GPA: 4.18 / 4.3 Major GPA: 4.21 / 4.3 Ranking: 1 / 43	February, 2021 - present Advised by <i>Prof. Wei-Chen Chiu</i> September, 2017 - January, 2021
RESEARCH EXPERIENCE	National Chung Cheng University <i>Machine Vision and Learning Lab</i> Undergraduate Research Assistant • Published one CVPR Workshop paper • College Student Research Project: AI calligraphy using 6DoF robotic arm	March, 2020 - January 2021 Advised by <i>Prof. Chen-Kuo Chiang</i>
HONORS AND SCHOLARSHIPS	Presidential Honor Award Achieve top 1% in College of Engineering for 5 times College Student Research Scholarship NT\$ 48,000 Google Student Travel Scholarship Scholarship to attend 2019 Grace Hopper Celebration	2017 - 2021 <i>National Chung Cheng University</i> 2020 <i>Ministry of Science and Technology, Taiwan</i> 2019 <i>Google, Taiwan</i>
PUBLICATIONS	Yun-Lun Li, Zhi-Yi Chin, Ming-Ching Chang, Chen-Kuo Chiang. Multi-Camera Tracking by Candidate Intersection Ratio Tracklet Matching , Accepted by <i>Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshop 2021</i>	
PROJECTS	RSNA Pneumonia Detection - Visual Recognition Using Deep Learning • Design a two stage method, which first use a classification model to classify pneumonia, then use a detection model to locate the disease. • Get the best results when using EfficientNet as classification model with 0.2 classification probability threshold when testing, and YOLOR as detection model. This method can reduce false positive results. • Boost the final accuracy 2% by resizing the predicted bounding box to 87.5% of the original size. Generative Models as Data Augmentation - Deep Learning and Practice • Investigate image transformation by exploring walks in the latent space of GAN. • Use GAN steerability as an data augmentation technique. • Conclude that GAN steerability is a better data augmentation technique compare to transformation done in the data space. Reimplementation Challenge - Reinforcement Learning • Reimplement ICLR 2018 paper: MAXIMUM A POSTERIORI POLICY OPTIMISATION in Pytorch. • Successfully replicate the results in Cartpole, Hopper and Acrobot in MuJoCo environment	January, 2022 September, 2021 July, 2021

Lane Detection - *Computer Vision*

June, 2021

- Design 3 methods for lane detection (2 traditional computer vision method and 1 deep learning method).
- Introduce hourglass network into the deep learning method and achieve accuracy 97% in TuSimple dataset.
- Realized the importance of data augmentations to boost the the accuracy.

Google CodeU Calendar Helper - *Google*

August, 2019

- A multifunctional Webapp for to-do lists and calendars.
- Using Javascript and JQuery as front-end and Java as back-end and host the Webapp on Google cloud console.
- Highlights: tagging system, nice dashboard design, synchronize with Google Calendar.

SKILLS

Programming Languages and Frameworks

- Programming Languages: Python/C++/C/MATLAB/L^AT_EX/Java/Javascript
- Machine Learning: Pytorch/OpenCV/scikit-learn
- Dev Tools: Git/Jupyter/Vim/VS Code/ Google Cloud Platform/ PyCharm/IntelliJ IDEA

Languages

- Mandarin Chinese (native)
- English (proficient)