

Gi-Luen (Allen) Huang 黃繼綸

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Education

National Taiwan University, NTU | Feb. 2021 ~ Jan. 2023
M.S degree in Graduate Institute of Communication Engineering (GICE)
GPA: 4.30/4.30 Ranking: 1/160

National Taiwan University of Science and Technology, NTUST
B.S degree in Department of Electrical Engineering (EE)
GPA: 4.09/4.30 Ranking: 7/102

Language

- English Proficiency Test Certificate -- TOEIC 825
- CEFR-B2 Vantage
- Mandarin (native speaker)

Technical Skills

- Programming: Python, C++
- Framework: PyTorch
- Developer Tools: Git, Docker
- Libraries: Pandas, Numpy, Scikit-Learn, Matplotlib, Flask

TA Experiences

- Deep Learning for Computer Vision | Aug. 2022 ~ Present
 - Instructor: prof. Yu-Chiang Frank Wang
- Machine Learning | Sep. 2022 ~ Oct. 2022
 - Instructor: prof. Pei-Yuan Wu
- Time Frequency Analysis and Wavelet Transform | Sep. 2021 ~ Jan. 2022
 - Instructor: prof. Jian-Jiun Ding
- Data Structure | Feb. 2021 ~ Jun. 2021
 - Instructor: prof. Pei-Yuan Wu

PROJECTS & COMPETITION EXPERIENCES

CTGAN: Cloud Transformer Generative Adversarial Network | Feb. 2021 ~ Oct. 2022

[ICIP 2022] Design a generative network to remove the cloud region from the temporal cloudy satellite images

NTU CV final project -- Pupil Tracking | 2022 Spring

Combine the Deeplab-v3-plus with the traditional CV method to obtain the pupil segmentation (3/21, Top 3)

2022 T-Brain Competition -- Orchid Species Identification And Classification | Apr. 2022 ~ Jun. 2022

Combine deep learning and machine learning method to develop a generalizable classifier (14/743, Top 2%)

2022 T-Brain Competition -- Lung Adenocarcinoma Pathological Image Segmentation | Mar. 2022 ~ Jun. 2022

Develop Deeplab-v3-plus to segment the cells having STAS features (2/307, Top 1%)

2022 AIDEA Competition -- Crops Status Monitoring by Image Recognition | Mar. 2022 ~ May 2022

Develop SOTA model "ConvNext" to conduct image classification (3/428, Top 1%)

2022 AIDEA Competition -- Human Voice Denoising | Feb. 2022 ~ May 2022

Develop an unet-based 1D model with time-frequency fourier transform loss (6/282, Top 2%)

NTU DLMI Midtern Project -- Intracranial Hemorrhage Prediction | Nov. 2021 ~ Dec. 2021

Develop an ensemble model of Resnet50 and SResnet50 to conduct multi-label classification problem

2021 T-Brain Competition -- Traditional Chinese Scene Text Recognition (Advanced) | Nov. 2021 ~ Dec. 2021

Apply Yolov5 for scene text detection, and further apply Vision Transformer for scene text recognition (6/128, Top 5%)

2021 T-Brain Competition -- Traditional Chinese Scene Text Recognition (Intermediate) | Aug. 2021 ~ Oct. 2021

Apply ArcMargin and Focal loss makes the model learn more useful features (5/183, Top 3% and Innovation Award from T_Brain)

Facial Deception Detection System | Mar. 2019 ~ May 2021

[ICSSE 2020] Develop a system to extract facial micro-expression to determine whether the subject is lying

Research Interests

- Machine Learning
- Deep Learning For Computer Vision
- Deep Learning For Audio Processing

Publications

- Huang, G. L., & Wu, P. Y. (2022, October). CTGAN: Cloud Transformer Generative Adversarial Network. In 2022 IEEE International Conference on Image Processing (ICIP) (pp. 511-515). IEEE.
- L. W. Hsiao, J. M. Guo, **G. L. Huang**, et al. "Face Expression and Tone of Voice for Deception System." 2020 International Conference on System Science and Engineering (ICSSE 2020). (Best student paper)

Industry Experiences

Maching Learning Intern, Jubo, New Taipei, TW | Jul. 2022 ~ Aug. 2022
Python/Gitlab/CICD/Docker/Kubernetes

- Collaborate with colleagues to develop MLops
- Develop the deep learning model to predict wound information
- Deploy the model as a service using Docker on GCP

Machine Learning Intern, Neurobit, Taipei, TW | Feb. 2022 ~ Jun. 2022
Python/Github/Statistics

- Develop the gaze estimation model by introducing self-supervised learning, which reduces the gaze error from 10 degrees to 1 degree
- Write the journal paper with the company

IT Intern, TSMC, Hsinchu, TW | Jul. 2021 ~ Sep. 2021
Java/Javascript/Github/Docker/Kubernetes

- Full-stack system integration
- Deploy the website using Docker and Kubernetes