

# 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

[Cloud Removal From Temporal Satellite Images](#) | Feb. 2021 ~ Oct. 2022

Design a generative network for restoring the temporal cloudy satellite images into cloud-free image (ICIP 2022)

[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 -- 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 -- 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 -- Crops Status Monitoring by Image Recognition](#) | Mar. 2022 ~ May 2022

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

[2022 AIdea -- 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 SEResnet50 to conduct multi-label classification problem

[2021 T-Brain -- Traditional Chinese Scene Text Recognition \(Advanced Contest\)](#) | 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 -- Traditional Chinese Scene Text Recognition \(Intermediate Contest\)](#) | 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

Develop a system that extracts the facial expression to determine whether the subject is lying (ICSSE 2020)

## 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