# I-SHENG FANG

#### ishengfang.github.io

GitHub, Instagram ♦ ishengfang

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#### **EDUCATION**

#### Graduate student

September, 2020 -

The Master's Degree Program in Robotics, National Yang Ming Chiao Tung University, the merger of National Chiao Tung University and National Yang Ming University.

# Graduate student (temporally leaving)

January, 2020 -

Computer Sciences, National Chengchi University.

#### Bachelor of Science

September, 2013 - January, 2018

Mathematical Sciences, National Chengchi University.

# **PUBLICATIONS**

# Single Image Reflection Removal based on Knowledge-distilling Content Disentanglement

Yan-Tsung Peng, Kai-Han Cheng, I-Sheng Fang, Wen-Yi Peng, Jr-Shian Wu

IEEE Signal Processing Letters(SPL) Feb. 2022

Disentangle the reflection and transmission feature via knowledge distillation and remove the reflection with a single image.

# Self-Contained Stylization via Steganography for Reverse and Serial Style Transfer Hung-Yu Chen\*, I-Sheng Fang\*, Chia-Ming Cheng, Wei-Chen Chiu.

(\* indicates equal contribution.)

IEEE Winter Conference on Applications of Computer Vision (WACV), 2020.

[Project Page] Co-First author. Combine nerual style tansfer and deep steganography, reslove reverse and serial issue of stlye transfer.

#### **PROJECTS**

#### A Century of Heartfelt Sentiment

# 100<sup>th</sup> Anniversary Special Exhibition of the Taiwan Cultural Association

2021

The exhibition of National Museum of Taiwan Literature, Tainan , Taiwan.

Synthesizing DeepFake video for historical figure of Taiwan Cultural Association.

# Font Design with Progressive invariant GANs

2017

Honorable Mention of MOST Workshop on Generative Adversarial Networks and GAN Project Competition. Introduced GLCM, a invariant, in progressive growing VAE-GAN to embed font in  $\mathbb{R}^{300}$  latent space. Generated new font or glyph by modtified the latent space Improved training speed, convergence speed and higher resolution.

# Hanzi Typeface Research with Conditional Generative Adversarial Network 2017

Poster of Taiwan Society for Industrial and Applied Mathematics Annual Meeting.

Using autoencoder and conditional GAN to embed font in  $\mathbb{R}^n$  latent space.

Advisor: Prof. Yen-Lung Tsai.

#### **APPOINTMENTS**

# Microsoft AI R&D Center, Taiwan

March, 2022 -

# **Enriched Vision Applications Lab**

September, 2018 - September, 2019

Research Assistant

Lab of National Chiao Tung University. My advisor is Professor Wei-Chen Chiu.

The First Step of AI and Deep Learning with Python July, 2018 - September, 2018 Teaching Assistant

The MOOCs of National Chengchi University.

Wrote the cue for video cut and additional tips, solved students' problems by online and offline. Teacher is Prof. Yen-lung Tsai.

#### Fire Department, New Taipei City Government

March-June, 2018

Fire Fighting Substitute Military Services

Discharged on June  $23^{rd}$ , 2018.

# InQtech Co.,Ltd

September, 2017 - June, 2018

Deep Learning Scientist

InQtech is AI and AIOT startup. Deployed AI in industry.

Researcher of PCB segmentation by GAN project.

Used semi-supervised GAN model to segment part of PCB for robotic assembling.

# The First Step of Data Analysis with Python

September, 2017 - January, 2018

Teaching Assistant

The MOOCs of National Chengchi University.

Wrote the cue for video cut and additional tips, solved students' problems by online and offline. Teacher is Prof. Yen-lung Tsai.

## Leopard Mobile

July-September, 2017

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Data analysis in CM Security commerce realization team.

Predicted user behavior prediction with deep learning model

# NCCU Deep Learning & TWSIAM Student Group

January, 2017-January, 2018

Member

Winning first place of study group final presentation in NCCU.

Usually discussion host, especially in GAN.

#### TECHNICAL SKILL

Computer Languages Python

Deep Learning related PyTorch, Keras, TensorFlow

Computer Vision related OpenCV

Data Science related Pandas, Mathplotlib, scikit-learn

Tools VS code, Jupyter Lab & Notebook, Vim, Bash, Linux Others Film Photography, Typography, Pitching, Curation