I-SHENG FANG

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EDUCATION

Master of Science   *September, 2020 - February, 2023*
Robotics, National Yang Ming Chiao Tung University, the merger of National Chiao Tung University and National Yang Ming University. GPA: 4.23

Graduate student   *January, 2020 - August, 2020*
Computer Sciences, National Chengchi University.

Bachelor of Science   *September, 2013 - January, 2018*
Mathematical Sciences, National Chengchi University. GPA:2.63

PUBLICATIONS

ES^{3}Net: Accurate and Efficient Edge-based Self-Supervised Stereo Matching Network
I-Sheng Fang, Hsuao-Chieh Wen, Chia-Lun Hsu, Po-Chung Jen, Ping-Yang Chen, Yong-Sheng Chen
The 19th Embedded Vision Workshop(EVW) of IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops (CVPRW), 2023.
Adapt efficient cost-volume based stereo matching to self-supervised learning and deploy the network on NVIDIA TX2 in the drone.

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
100th 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 - November, 2022*
Software Engineer Intern (Face Science)

Investigated vision transformer(ViT) and perceptual loss.

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 23rd, 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*
intern

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.