Yu-Wei Chen

(+886)0911187345 | ✉ | in |

Research Interest

Image Processing, Computer Vision with Machine Learning. Especially on Image Restoration, Image Enhancement, Image-to-Image Translation, Domain Adaptation

Education

National Taiwan University Taipei, Taiwan

M.S. in Graduate Institute of Communication Engineering *2020/9 - 2022/6*

Data Science and Smart Networking Group

- GPA: 4.2/4.3 Ranking: 26/141(18.4%)
- Selected Courses: Advanced Computer Vision, Digital Visual Effect, 3D Computer Vision with Deep Learning Applications, Deep Learning Computer Vision
- Master Thesis: *Multiple Degradation Image Enhancement, Domain Adaptation, Object Detection and Beyond* Advisor: Prof. Soo-Chang Pei

National Central University Taoyuan, Taiwan

B.S in Computer Science and Information Engineering *2017/9 - 2020/6*

- Credit: 170 GPA: 3.93/4.0 (Overall) 4.0/4.0 (Major)Ranking: 24/134 (17.9%)
- Interdisciplinary program: creativity and entrepreneurship program
- Selected Courses: 3D Computer Graphics, Computer Vision an Overview, Artificial Intelligence, Neural Network, Computational Intelligence, Introduction to Deep Learning, Software Engineering Practices
- Undergraduate Research: *AI Camera: Application of Photography Aesthetic Assessment Based on Neural Networks* Adviser: Prof. Mu-Chun Su
- Leadership: Minister of Manuscripts Group, Literary Award of National Central University

Publication

[1] **Yu-Wei Chen***, Soo-Chang Pei. "Domain Adaptation for Underwater Image Enhancement via Content and Style Separation" IEEE Transactions on Image Processing (TIP), 2022 (Under Review).

[2] **Yu-Wei Chen***, Soo-Chang Pei, Chiou-Shann Fuh, "DTLN: A Deep Two branch Lightening Network with Saturation Adjustment for Low light Enhancement", in Proc. of the 34 th IPPR Conf. on Computer Vision, Graphics a nd Image Processing (CVGIP), Aug.22 24, 2021.

Experience

Algorithm Engineer] 2022/9 – present

NovaTek Microelectronics Crop. *Hsinchu, Taiwan*

- Develop and maintain image processing algorithms project

Teaching Assistant [EE-3031 Computer Programming] 2021/2 – 2021/7

National Taiwan University *Taipei, Taiwan*

- Provide TA hours, support weekly problem-solving seminars, assign and correct assignments and final exam.

AI Research Intern 2020/7 – 2020/9

Caloudi Corporation *Taipei, Taiwan*

- **Fully** process time series anomaly detection and forecasting, use signal processing and ML techniques with Python
- Create and manage RESTful API of anomaly detection and forecasting and deploy on Azure app service

Awards and Honors

- **Second Place** in 2019 International ICT Innovative Services Awards Titansoft agile develop award
- **Excellent grades** in 2019 AICUP

Technical Skills

Programming Languages: Java, Python, C, C++, X86 assembly
Frameworks: Pytorch, Keras, OpenCV, OpenGL
Developer Tools: Git, MySQL, Android Studio, PyCharm, IntelliJ IDEA, Virtual Box, Postman, Putty
Technical Writing: LaTeX, Markdown

Projects

High Dynamic Range Imaging | *Pei-Ying Lin,* ***Yu-Wei Chen*** 2021/6

- Fully implement HDR flow, include image alignment, HDR reconstruction algorithms, tone mapping operator.

Image Stitching for Panorama | *Pei-Ying Lin,* ***Yu-Wei Chen*** 2021/6

- Fully implement panorama image processing pipeline, include cylindrical warping, feature detection and matching, image blending, simple solution for bundle adjustment.