

Research Interests

- Low-level Vision
- Image/Video Restoration
- Image/Video Deblurring, Dehazing, Deraining, and Related Enhancements

Education

- Sep. 2021 - Present **Ph.D. Student**, *National Tsing Hua University, Taiwan*,
Department of Electrical Engineering.
- Sep. 2019 - Jun. 2021 **M.S.**, *National Tsing Hua University, Taiwan*,
Institute of Communications Engineering,
GPA – 4.17/4.3.
- Sep. 2015 - Jun. 2019 **B.S.**, *National Taiwan Ocean University, Taiwan*,
Department of Electrical Engineering,
GPA – 3.91/4.3 (87.55/100), Rank – 12/99.

Publications, *equal contribution

- Under review 2025 Jin-Ting He, **Fu-Jen Tsai**, Yan-Tsung Peng, Chia-Wen Lin, and Yen-Yu Lin. **Blur Diffusion Model for Image Deblurring**. In arXiv, 2025.
- Under review 2025 **Fu-Jen Tsai**, Yan-Tsung Peng, Yen-Yu Lin, Chung-Chi Tsai, and Chia-Wen Lin. **PHATNet: A Physics-guided Haze Transfer Network for Domain-adaptive Real-world Image Dehazing**. In arXiv, 2025.
- Under review 2025 **Fu-Jen Tsai***, Chih-Ling Chang*, Zi-Ling Huang, Lin Gu, Chia-Wen Lin. **Unleashing the Power of Deep Dehazing Models: A Physics-guided Parametric Augmentation Net for Image Rehazing**. In arXiv, 2025.
- ACCV 2024 Hsing Hua Wang*, **Fu-Jen Tsai***, Yen-Yu Lin, and Chia-Wen Lin. **TANet: Triplet Attention Network for All-In-One Adverse Weather Image Restoration**. In Asian Conference on Computer Vision (ACCV), 2024.
- ECCV 2024 Jin-Ting He*, **Fu-Jen Tsai***, Yan-Tsung Peng, Chung-Chi Tsai, Chia-Wen Lin, and Yen-Yu Lin. **Domain-adaptive Video Deblurring via Test-time Reblurring**. In European Conference on Computer Vision (ECCV), 2024.
- CVPR 2024 Jia-Hao Wu*, **Fu-Jen Tsai***, Yan-Tsung Peng, Chung-Chi Tsai, Chia-Wen Lin, and Yen-Yu Lin. **ID-Blau: Image Deblurring by Implicit Diffusion-based reBLurring AUGmentation**. In Computer Vision and Pattern Recognition Conference (CVPR), 2024.
- arXiv 2023 **Fu-Jen Tsai**, Yan-Tsung Peng, Chen-Yu Chang, Chan-Yu Li, Yen-Yu Lin, Chung-Chi Tsai, and Chia-Wen Lin. **ViStripformer: A Token-Efficient Transformer for Versatile Video Restoration**. In arXiv, 2023.
- ECCV 2022 (Oral) **Fu-Jen Tsai**, Yan-Tsung Peng, Yen-Yu Lin, Chung-Chi Tsai, and Chia-Wen Lin. **Stripformer: Strip Transformer for Fast Image Deblurring**. In European Conference on Computer Vision (ECCV), 2022.
- BMVC 2022 Po-Sheng Liu, **Fu-Jen Tsai**, Yan-Tsung Peng, Chung-Chi Tsai, Chia-Wen Lin, and Yen-Yu Lin. **Meta Transferring for Deblurring**. In British Machine Vision Conference (BMVC), 2022.
- TIP 2022 **Fu-Jen Tsai***, Yan-Tsung Peng*, Yen-Yu Lin, Chung-Chi Tsai, and Chia-Wen Lin. **BANet: Blur-aware Attention Networks for Dynamic Scene Deblurring**. In Transaction on Image Processing (TIP), 2022.

Experience

- Sep. 2023 - Feb. 2024 **Computational Imaging and Vision Laboratory**, *National Institute of Informatics, Japan.*
INTERN. Mentor: Prof. Imari Sato (NII)
- Jan. 2022 - Apr. 2022 **TSMC**, *Taiwan.*
Research Assistant (Industry Collaboration)
- Sep. 2019 - Sep. 2024 **Qualcomm**, *San Diego, US.*
Research Assistant (Industry Collaboration)
- Jul. 2019 - Present **Networked and Video Lab**, *National Tsing Hua University, Taiwan.*
M.S./Ph.D. Student. Advisor: Prof. Chia-Wen Lin (NTHU)
- Jul. 2019 - Present **Vision and Learning Lab**, *National Yang Ming Chiao Tung University, Taiwan.*
M.S./Ph.D. Student. Advisor: Prof. Yen-Yu Lin (NYCU)

Honors

- Aug. 2022 **International Thesis Merit Award**,
National Tsing Hua University.
- Aug. 2022 **Master Thesis Merit Award**,
Chinese Image Processing and Pattern Recognition Society.
- Dec. 2021 **Technology Excellence Award**,
Foxconn Education Foundation.