# Yu-Wei Chen

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## EXPERIENCE

**Algorithm Engineer**                                               2022/9 – Present
*NovaTek Microelectronics Corp.*                                      *Hsinchu, Taiwan*
- Maintain IP of image scaler
- Design and own the IP of AI highly compressed video enhancement
- Design algorithms of detail adjustable AISR and improve algorithm of AI de-flicker
- Technical study, include HDR, diffusion model on computer graphics and computational photography

**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

## 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. "Always Clear Days: Degradation Type and Severity Aware All-In-One Adverse Weather Removal", arXiv, 2024. ***Citation: 3***

[2] **Yu-Wei Chen\***, Soo-Chang Pei. "Domain Adaptation for Underwater Image Enhancement via Content and Style Separation" IEEE Access, 2022. ***Citation: 20***

[3] **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.

## 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, Tensorflow, OpenCV, OpenGL
**Developer Tools**: Git, MySQL, Visual Studio, PyCharm, IntelliJ IDEA, Virtual Box, Postman, Putty
**Technical Writing**: LaTeX, Markdown