Chen Wei Chang

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EDUCATION

M.S. National Yang Ming Chiao Tung University

Institute of Artificial Intelligence Innovation (GPA 4/4.3)

B.S. National Taipei University of Technology

Department of Electronics Engineering (GPA 3.91/4.0)

Hsinchu, Taiwan
Sep. 2023 Taipei, Taiwan
Sep. 2019 - June. 2023

WORK EXPERIENCE

Full-Stack Engineer

Flask, React.js, MySQL, Linux

NYCU Mobile and Pervasive Computing Laboratory, Hsinchu, Taiwan

Sep. 2023 - Present

- Developed multiple new analysis features on the CoachAI website, including scoring position replay, smash-to-net running speed statistics, and various other analytical functionalities.
- Developed a backend management system providing account/group management, dataset authorization management, and webpage access control.
- Developed a doubles website based on the architecture of the singles badminton website, enhancing the website's functionality and diversity.
- Maintained the website on Linux servers.

Full-Stack Engineer

React.js, SQL Server, ASP.NET MVC

Mores Tech, Taipei, Taiwan

Feb. 2023 - Jun. 2023

- Developed a feature to generate various OpenOffice format reports for reference and download through LibreOffice integration.
- Developed a message and Q&A feature allowing users to report project updates to different departments through the system and track the progress of the projects.

PUBLICATIONS

• GCC: Generative Color Constancy via Diffusing a Color Checker

CVPR 2025

Chen-Wei Chang, Cheng-De Fan, Chia-Che Chang, Yi-Chen Lo, Yu-Chee Tseng, Jiun-Long Huang, Yu-Lun Liu Link A novel approach that leverages pretrained diffusion-based inpainting models to generate color checkers within images, enabling accurate illumination estimation across different camera sensors.

• SpectroMotion: Dynamic 3D Reconstruction of Specular Scenes

CVPR 2025

Cheng-De Fan, Chen-Wei Chang, Yi-Ruei Liu, Jie-Ying Lee, Jiun-Long Huang, Yu-Chee Tseng, Yu-Lun Liu

Link
A novel approach for dynamic specular 3D scene synthesis combining 3D Gaussian Splatting with physically-based rendering and deformation fields.

IllusionMaker

Under review at SIGGRAPH Asia 2025

Chun-Wei Tuan Mu, Zheng-Hui Huang, <u>Chen-Wei Chang</u>, Yung-Yu Chuang, Jia-Bin Huang, Yu-Lun Liu <u>Link</u> We propose a diffusion-based model for spatially varying defocus blur editing that enables precise depth-of-field control and demonstrates applications in perspective illusion videos and DSLR-like bokeh simulation.

PROJECTS

- Golf Ball Trajectory Estimation System, Developed a computer vision system using high-speed cameras to track golf balls, calculate flight parameters, and visualize predicted flight trajectories on a web-based platform.
- **RESTful Web Game Platform**, Designed and implemented an interactive web gaming platform with user authentication, classic arcade games, and competitive leaderboards using HTML, CSS, JavaScript, Express.js, and SQLite.

 <u>Link</u>

EXTRACURRICULAR ACTIVITIES

• Event Coordinator in Student Association for the Department of Electrical Engineering - Sep 2020 - Sep 2021

SELECTED HONORS AND AWARDS

- Academic Achievement Award, Department of Electronics Engineering, NTUT May. 2020
- Academic Achievement Award, Department of Electronics Engineering, NTUT Nov. 2020

TECHNICAL SKILLS

Programming Languages: Python, C++, JavaScript(React.js), SQL(MySQL, SQL server), Verilog

Libraries and Tools: PyTorch, OpenCV, Git, Linux