Shr-Ruei Tsai

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EDUCATION

National Yang Ming Chiao Tung University (NYCU)   **Hsinchu, Taiwan**
B.S. in Computer Science   Jul. 2021 - Present
GPA : 4.06/4.3 (Overall), 4.16/4.3 (Major)

Relevent Courses : Introduction to Database Systems, Introduction to Computer Graphics, Introduction to AI, Introduction to Image Processing, Introduction to ML, Computer System Administration

EXPERIENCES

Undergraduate Research Assistant in Comp Photo Lab   Jul. 2023 - Present
Advisor : Prof. Yu-Lun Liu
Research Topic : MVS-based Neural Radiance Fields

Undergraduate Research Assistant
in Frontier Materials & Engineering Alloys Laboratory (FMEAL)   Oct. 2023 - Present
Advisor : Prof. E-Wen Huang
Research Topic : ML in Shape Memory Alloys

PUBLICATION

BoostMVSNeRFs:
Boosting MVS-based NeRFs to Generalizable View Synthesis in Large-scale Scenes
Chih-Hai Su*, Chih-Yao Hu*, Shr-Ruei Tsai*, Jie-Ying Lee*, Chin-Yang Lin, Yu-Lun Liu (* denotes equal contribution)
This work is currently under review at SIGGRAPH 2024.

BoostMVSNeRFs aims to enhance the rendering quality of MVS-based NeRFs in large-scale scenes, and our method shows significant rendering quality improvements in large-scale scenes and unbounded outdoor scenarios.

PROJECTS

Personal Website (JavaScript, Vue.js, Vuetify.js)   Aug. 2023
I am using Vue.js for a side project to create my personal website. Link

Reversi (Python, Pygame)   Jul. 2023
The game is created for the CS camp courses. We used Pygame as the game's GUI and implemented AI to play against the player using the Mini-max algorithm. Link

Real or AI image (Python, TensorFlow)   Jun. 2023
This is my AI final project to identify the most effective networks in detecting real or AI images. Link

NYCU++ (Python, Django, PostgreSQL)   Jan. 2023
A basic website designed for students to upload and search for course recommendations. Link

FPS Game (Unity, C#)   Jan. 2023
The shooting game is my final project of introduction to computer graphics. Link

EXTRACURRICULAR ACTIVITY

Manager of Equipment Section in
NYCU Computer Science Student Association   Jun. 2023 - Present