Chung-Ho (Kenneth) Wu

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Education

National Yang Ming Chiao Tung University Hsinchu, Taiwan
M.S. *in Multimedia Engineering. Advisor: Yu-Lun Liu.* *Sep 2023 – Present*
Courses: XR Camp, Deep Learning, Perception and Decision Making in Intelligent Systems, Image Processing, Video streaming and tracking, Computer Animation and Special Effects, Parallel Programming.

National Yang Ming Chiao Tung University Hsinchu, Taiwan
B.S. *in Computer Science.* *Sep 2019 – June 2023*

Publications

Fast Few-shot NeRF Under Review at CVPR2025
Chung-Ho Wu, Chin-Yang Lin*, Changhan Yeh, Alex Yen, Cheng Sun, Yu-Lun Liu* *Model Acceleration, Memory Efficient*
- Proposed a 3D scene reconstruction method from sparse input images, achieving state-of-the-art quality. Significantly outperformed existing approaches with a 10x improvement in training times, while eliminating the need for pre-trained priors such as monocular depth.

360° Unbounded Scene Inpainting Under Review at CVPR2025
Chung-Ho Wu, Yang-Jung Chen*, Ying-Huan Chen, Jie-Ying Lee, Bo-Hsu Ke, Chun-Wei Tuan Mu, Yi-Chuan Huang, Chin-Yang Lin, Min-Hung Chen, Yen-Yu Lin, Yu-Lun Liu* *Diffusion, 3DGS*
- Proposed a novel 360° unbounded scene inpainting method leveraging depth-aware Gaussian Splatting and diffusion priors to achieve high-quality object removal with geometric accuracy and multi-view consistency.

Experience

AI Software intern April 2024 – Oct 2024
Qualcomm *Python, C++, LangChain*
- Studied the process of converting Python frontend models to formats compatible with company chips.
- Explored the use of PyBind to integrate Python with C++ for converting Python frontend to C++ IR.
- Developed an scalable ticket analysis pipeline using LangGraph and LLMs to summarize ticket-related code diffs, enabling quick understanding of issues and solutions by linking ticket numbers to relevant code changes
- Contributed to the company's internal LLM framework, successfully merged into the main codebase.

3D Modeling Intern May 2023 – Aug 2023
ITRI *Python, PyTorch, NerfStudio*
- Contributed to high-quality 3D reconstructions for online shopping products, incorporating AI techniques.
- Researched and implemented methodologies for the transformation from the Neural Radiance Field into dynamic meshes and textures with spherical harmonic parameters, integrated into the traditional rendering pipeline.
- Focused on literature review, utilizing Python, PyTorch, and NerfStudio API.

Projects

PDM Project: Perception and Decision Making in Intelligent Systems Sep 2023 - Jan 2024
- Leading a project focusing on SLAM, 3D semantic reconstruction, indoor robot navigation, and robot manipulations framework.
- Key areas of expertise include Robotics, Computer Vision, Python, PyTorch, OpenCV, and Open3D.

Boosting Zero-shot text-prompt segmentation Sep 2023 - Jan 2024
- Design and boosting details of zero-shot text-prompt segmentation utilized Fast Bilateral Solver.
- 1st place in NYCU Digital Image Processing water segmentation challenge.

Under The Lake: VR Horror Immersive Experience (XR-Showcase Silver Award) Apr 2023 - June 2023
- Led the design and implementation of "Under the Lake," a VR Horror Immersive Experience.
- Focused on utilizing SteamVR API, Unity, and C# scripting for scene mechanisms.

Expiration Reminder Service Oct 2022 - Dec 2022
- Provide an expiration reminder service, which could remind the user of the expiration and detect the usage rate, by connecting an IoT box with an iOS app using ThingSpeak.
- Construct the IoT box by Arduino and 3D printing, and detect the item in the box using ML skills to update the corresponding data on ThingSpeak timely.

Programming Skills

Programming Languages: C/C++, C#, Python, Pytorch, Onnx, TensorFlow, CUDA, SQL, Swift, HTML, JS.

Tools: Git, Docker, Linux, Shell Script, OpenCV, OpenGL, Open3D, Unity, Latex, Flask, Heroku, LangChain.