# 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.

# National Yang Ming Chiao Tung University

Hsinchu, Taiwan

**B.S.** in Computer Science.

Sep 2019 - June 2023

## **PUBLICATIONS**

## Fast Few-shot NeRF

Submitted to ECCV2024

Chung-Ho Wu, Chin-Yang Lin, Changhan Yeh, Alex Yen, Cheng Sun, Yu-Lun Liu

CV, ML, AI

• 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.

### EXPERIENCE

### AI Software intern

April 2024 – Present

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.
- Developing tools using LangChain to automatically generate frontend models using LLM to improve unit test coverage of converters and contribute to internal LLM frameworks.

# 3D Modeling Intern

May 2023 – Aug 2023

ITRI

Python, PyTorch, NerfStudio

- Contributed to high-quality 3D reconstructions for online shopping products, incorporating cutting-edge 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.

#### 1A2B Game

Oct 2022 - Dec 2022

• Designed a 1A2B Game server and client using C++ TCP/UDP sockets capable of handling multiple connections and receiving user commands from standard input.

## **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.

## CS Union Loyalty Card

Dec 2020 - Feb 2021

• A reward system using Line Bot API, Heroku, and Flask to boost the activities participation. PROGRAMMING SKILLS

Programming Languages: C/C++, C#, Python, SQL, Swift, HTML, JS.

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