# Bo-Hsu (Hentci) Ke

## Education

#### National Yang Ming Chiao Tung University

Sept 2024 - Present

M.S. in Computer Science. Advisor: Wei-Chen Chiu. Co-Advisor: Yu-Lun Liu.

o Courses: Deep Learning, Data Visualization and Visual Analytics, Video Compression.

#### **National Chung Cheng University**

Sept 2020 - June 2024

B.S. in Computer Science. Advisor: Jian-Jhih Kuo.

o **GPA**: 4.08/4.3

## **Publications**

#### 360-InpaintR: Reference-Guided 3D Inpainting for Unbounded Scenes

Chung-Ho Wu\*, Yang-Jung Chen\*, Chin-Yang Lin, Yi-Chuan Huang, **Bo-Hsu Ke**, Ying-Huan Chen, Jie-Ying Lee, Chun-Wei Tuan Mu, Min-Hung Chen, Yen-Yu Lin, Yu-Lun Liu\*

Under Submission, 2024

#### Feature Distraction Based Backdoor Defense for Federated Trained Intrusion Detection System

Yu-Wen Chen\*, **Bo-Hsu Ke\***, Yen-Xin Wang, Shih-Heng Lin, Ming-Han Tsai, Bo-Zhong Chen, Jian-Jhih Kuo\*, Ren-Hung Hwang

IEEE Global Communications Conference, (GLOBECOM) 2024

## Knowledge Distillation Based Defense for Audio Trigger Backdoor in Federated Learning

Yu-Wen Chen\*, **Bo-Hsu Ke\***, Bo-Zhong Chen\*, Si-Rong Chiu, Chun-Wei Tu, Jian-Jhih Kuo *IEEE Global Communications Conference*,(GLOBECOM) 2023

#### Successive Interference Cancellation Based Defense for Trigger Backdoor in Federated Learning

Yu-Wen Chen\*, Bo-Hsu Ke\*, Bo-Zhong Chen\*, Si-Rong Chiu, Chun-Wei Tu, Jian-Jhih Kuo

IEEE International Conference on Communications, (ICC) 2023

\*: equal contribution.

## Experiences

## **Backend Developer**

June 2021 - Apr 2023

Munative

- Developed the backend for Munative, a Web APP designed for Model United Nations activities, using TypeScript, Node.js, GraphQL API, and MongoDB.
- Implemented Domain-Driven Design principles to ensure flexibility and handle complex use cases in the backend architecture.

## **Projects**

## 3D-Aware Image Restoration: Leveraging Diffusion Models and Vision Mamba Techniques

July 2024 - Aug 2024

Evaluating the effectiveness of various methods (Restormer, fine-tuned diffusion model, and Vision Mamba) in mitigating simulated image artifacts to enhance NeRF and 3DGS performance in novel-view synthesis.

## Watermark Persistence in 3DGS: Evaluating Steganographic Robustness in 3D Scene Reconstruction

Apr 2024 - June 2024

Evaluating the persistence of watermarks embedded using LSB, StegaStamp, and other steganographic techniques through the 3DGS reconstruction process.

## Liver Saving Bot: Automated Script for Web-Based Games

Oct 2021 - June 2024

Liver Saving Bot is a fully automated script for Granblue Fantasy, developed over three years to alleviate

the game's time-consuming nature, leveraging my web and script development experience.

## Awards

- o President's Award in 2023 Spring Semester (Top 1% in the class)
- o Bronze Award of The 2022 ICPC Asia Taoyuan Regional Programming Contest
- $\circ$  Bronze Award of The 2023 ICPC Asia Taoyuan Regional Programming Contest
- o Silver Award of The 2023 ICPC Asia Taiwan Online Programming Contest
- College Student Research Scholarship, National Science and Technology Council, Taiwan (collaborate with Bo-Zhong Chen, 2023)

## **Programming Skills**

Languages: C/C++, Python, JavaScript, TypeScript

Tools: Git, Docker, Linux, Shell Script, PyTorch, TensorFlow, Latex, MongoDB, GraphQL, NerfStudio