

# Bo-Hsu (Hentci) Ke

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## Education

**National Yang Ming Chiao Tung University**

Sept 2024 – Present

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

- **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.*

- **GPA:** 4.08/4.3

## Publications

**AuraFusion360: Augmented Unseen Region Alignment for Reference-based 360° Unbounded Scene Inpainting**

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\*

*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 Restoration via Diffusion Models and Vision Mamba**

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 Robustness in Novel View Synthesis**

Apr 2024 - June 2024

Evaluating the persistence of watermarks embedded using LSB, StegaStamp, and other steganographic techniques through NeRF and 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

- **Bronze Award of The 2022 ICPC Asia Taoyuan Regional Programming Contest**
- **Bronze Award of The 2023 ICPC Asia Taoyuan Regional Programming Contest**
- **Silver Award of The 2023 ICPC Asia Taiwan Online Programming Contest**
- **President's Award in 2023 Spring Semester** (Top 1% in the class)
- **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