

# 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

### 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

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- **President's Award in 2023 Spring Semester** (Top 1% in the class)
- **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**
- **College Student Research Scholarship, National Science and Technology Council, Taiwan** (collaborate with Bo-Zhong Chen, 2023)

## Programming Skills

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

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