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

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 in CVPR 2025.

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