

Kang-Yang Huang

COMPUTER VISION · ARTIFICIAL INTELLIGENCE · MULTIMEDIA

✉ huangkangyang@cmlab.csie.ntu.edu.tw | 🌐 alberthkyhky.github.io | 📄 kang-yang-huang-1a47851a4 | 📍 Kang-Yang Huang

Summary

Computer Science Master's graduate from National Taiwan University (NTU) with specialized skills in Computer Vision, Deep Learning, and Generative AI (GenAI). Seeking a Research Scientist or CV/AI Engineer to deploy cutting-edge GenAI models for real-world applications. Previous highlights include receiving the Hon Hai Technology Award, NTU Lam Research Paper Award and Outstanding Student Scholarship, and membership in the Phi Tau Phi Scholastic Honor Society. Eager to apply my knowledge of image generation, image editing, and multimodal large language models (MLLMs) to contribute to your team.

Education

National Taiwan University (NTU)

Taipei, Taiwan

M.S. IN COMPUTER SCIENCE

Feb. 2023 - Jul. 2025

- Advisor: Prof. **Wen-Huang Cheng** & Prof. **Hong-Han Shuai**
- **Hon Hai Technology Award**, NTU Lam Research Paper Award and Outstanding Student Scholarship
- Member of the **Phi Tau Phi Scholastic Honor Society**
- GPA: 4.2/4.3; Average score: 96/100; Rank: 5/51
- Master Thesis: Multimodal Interpretable Deepfake Detection Benchmark for MLLM

National Yang Ming Chiao Tung University (NYCU)

Hsinchu, Taiwan

B.S. IN UNDERGRADUATE HONORS PROGRAM OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Sep. 2017 - Sep. 2021

- Exchange student at **RWTH Aachen University** (Germany) from Apr. to Sep. in 2019
- **Academic Achievement Award** in 2020 Fall Semester
- Member of the varsity Badminton team at NYCU.

Publications (Selected)

Conference Proceedings

- **K.-Y. Huang***, L. Zou*, J.-Y. Jiang-Lin*, L. Lo, S.-P. Yang, Y.-W. Tseng, K.-H. Lin, C.-L. Chen, Y.-T. Ta, Y.-T. Wang, P.-C. Chen, H. Xie, H.-H. Shuai, and W.-H. Cheng. "TriDF: Evaluating Perception, Detection, and Hallucination for Interpretable DeepFake Detection" **IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)**, 2026. [[📄 Paper](#), [📁 Project Page](#)]
- **K.-Y. Huang***, J.-Y. Jiang-Lin*, L. Lo, Y.-N. Huang, T. Lin, J.-C. Wu, H.-H. Shuai, and W.-H. Cheng. "ReCorD: Reasoning and Correcting Diffusion for HOI Generation." **ACM International Conference on Multimedia (MM)**, 2024. Poster Presentation [[📄 Paper](#), [📁 Project Page](#)]
- K.-H. Lin, Y.-W. Tseng, **K.-Y. Huang**, J.-C. Wu, and W.-H. Cheng. "InstructFLIP: Exploring Unified Vision-Language Model for Face Anti-spoofing." **ACM International Conference on Multimedia (MM)**, 2025. Oral Presentation [[📄 Paper](#), [📁 Project Page](#)]
- H.-H. Chou, R. Xu, **K.-Y. Huang**, J.-C. Wu, H.-H. Shuai, and W.-H. Cheng. "Dual Memory-Guided Probabilistic Model for Weakly-Supervised Anomaly Detection." **International Joint Conference on Artificial Intelligence Workshop (IJCAI W.)**, 2024. Oral Presentation [[📄 Paper](#)]
- L. Xue, **K.-Y. Huang**, R. Chao, J.-C. Wu, H.-H. Shuai, Y.-H. Li, and W.-H. Cheng. "Learning Efficient Interaction Anchor for HOI Detection." **IEEE International Conference on Multimedia and Expo (ICME)**, 2024. Oral Presentation [[📄 Paper](#)]
- C.-H. Wang, **K.-Y. Huang**, J.-C. Chen, H.-H. Shuai, and W.-H. Cheng. "Heterogeneous Federated Learning through Multi-branch Network." **IEEE International Conference on Multimedia and Expo (ICME)**, 2021. Oral Presentation [[📄 Paper](#)]

Journal Articles

- C.-H. Wang, **K.-Y. Huang**, Y. Yao, J.-C. Chen, H.-H. Shuai, and W.-H. Cheng. "Lightweight Deep Learning: An Overview." **IEEE Consumer Electronics Magazine (IEEE MCE)**, 2024. **Best Paper Awards** [[📄 Paper](#)]
- L. Zou, **K.-Y. Huang**, Y.-W. Tseng, L. Lo, J. Sanchez-Riera, J.-C. Wu, H.-H. Shuai, and W.-H. Cheng. "BAB-VAD: Breaking Ambiguity Barriers in Fine-Grained Video Anomaly Detection." **Submitted to top-tier international computer vision journal**, 2026.

Work Experience

Research Assistant

Hsinchu, Taiwan

ARTIFICIAL INTELLIGENCE AND MULTIMEDIA (AIMM) LABORATORY, NATIONAL YANG MING CHIAO TUNG UNI.

Oct. 2022 - Jan. 2023

- Advised by Prof. **Wen-Huang Cheng**
- Developed **LLMs** and **GenAI** models for Taiwan's top E-commerce enterprise, deploying customer-centric precision marketing on the official APP by analyzing browsing and purchase history to deliver customized advertisements, achieving a **50% CTR increase**.

Research Assistant

Taipei, Taiwan

RESEARCH CENTER FOR INFORMATION TECHNOLOGY INNOVATION (CITI), ACADEMIA SINICA

Jul. 2020 - Jul. 2021

- Advised by Dr. **Jun-Cheng Chen**
- Study heterogeneous **Federated Learning**, **AI security**: adversarial attack and defense, and **Model Compression**: Knowledge Distillation.

Projects

Multimodal Interpretable Deepfake Detection

National Taiwan Uni.

SUPPORTED BY **NVIDIA** ACADEMIC GRANT PROGRAM

Apr. 2025 - Present

- Assess the [perception](#) and [interpretation detection](#) capabilities of mainstream MLLMs, along with [hallucination tendencies](#).
- Familiar with over **50** generative models, ranging from editing to generation, e.g., SD3 (ICML'24), MotionEditor (CVPR'24), PixArt- σ (ECCV'24), CogVideoX (ICLR'25), UNO (ICCV'25), Wan-Edit (ICCV'25), Phantom (ICCV'25), Step1X-Edit, Wan, OmniGen2, ControlNeXt, Hunyuancustom, LTX-Video, FLUX. 1, etc.
- Led the research team by scheduling timelines and optimizing task allocation based on member strengths, fostering a collaborative environment that accelerated project delivery.
- Design [MLLMs](#) against malicious usage of generative AI.
- Accepted by [CVPR](#) 2026.

Taiwan-LLM Tutor: Large Language Models for Taiwanese Secondary Education

National Taiwan Uni.

APPLIED DEEP LEARNING'S TERM PROJECT ADVISED BY PROF. **YUN-NUNG CHEN**

 Slides,  Code

- Developed a Taiwanese Mandarin LLM using [QLoRA](#) and [instruction tuning](#).
- Devised Vision BERT by integrating [RoBERTa](#) and [CLIP](#) to perform VQA tasks.

Technical Skills

| | |
|---------------------------------|--|
| Programming&Tools | Python, LaTeX, Linux, Jupyter, and Vim |
| Frameworks&Libraries | PyTorch, OpenCV, Scikit-learn, Pandas, and Numpy |
| Project Management | Git, Notion, and Weight&Bias |

Language Skills

| | |
|----------------|--|
| Chinese | Native |
| English | Effective Operational Proficiency, TOEFL iBT: 96/120 |

Writings

Submitted to NVIDIA Technical Blog

National Taiwan Uni.

INVITED BY **NVIDIA**

Oct. 2025 - Present

- Developed a unified framework evaluating DeepFake detection across **16** forgery types in image, video, and audio modalities.
- Assessed state-of-the-art Multimodal LLMs on three critical perspectives: Perception (artifact identification/localization), Detection (binary classification), and Hallucination (explanation reliability).
- Demonstrated the interdependence of accurate perception and model hallucinations in building trustworthy synthetic media defenses.

Extracurricular Activities

Teaching Assistant

National Taiwan Uni.

COMPUTER VISION PRACTICE WITH DEEP LEARNING AND ARTIFICIAL INTELLIGENCE

Feb. 2023 - Jul. 2025

Varsity Badminton Team

National Yang Ming Chiao Tung Uni.

REPRESENTATIVE OF MEICHU 2018

Sep. 2017 - Jun. 2018

Reference

Prof. Wen-Huang Cheng

National Taiwan Uni.

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING

Professor, CSIE Associate Chair

- [✉ wenhuang@csie.ntu.edu.tw](mailto:wenhuang@csie.ntu.edu.tw)
- Academic Advisor for Graduate and Undergraduate Studies

Prof. Hong-Han Shuai

National Yang Ming Chiao Tung Uni.

DEPARTMENT OF ELECTRONICS AND ELECTRICAL ENGINEERING

Professor, Associate Chairman

- [✉ hhshuai@nycu.edu.tw](mailto:hhshuai@nycu.edu.tw)
- Academic Advisor for Graduate and Undergraduate Studies