

Kuansheng Chen

EDUCATION

University of Illinois Urbana-Champaign, Urbana, Illinois

Aug. 2023 – Jun. 2024

Exchange student in Computer Science

National Chiao Tung University, Hsinchu, Taiwan

Sept. 2019 - Jun. 2024

Bachelor of Science in Computer Science

Advisor: Yen-Yu Lin and Chien-Yao Wang

RESEARCH INTERESTS

My research interests lie in object detection and semantic segmentation. I am now working on bridging the performance gap between Open Vocabulary Detection (OVD) and Open World Object Detection (OWOD). My goal is to design a detector that can discover unlabeled unknown class objects during training and incrementally learn more unknown classes without supervision.

RESEARCH EXPERIENCES

NCTU – Vision and Learning Lab

Sep. 2022 - PRESENT

Research Assistant.

Advisor: Yen-Yu Lin, Professor at NCTU

Co-advisor: Chien-Yao Wang, Research Fellow at Academia Sinica

Research Project: Open World Object Detection

- Developed OWOD frameworks that can discover unlabeled unknown objects without unknown supervision and at the meantime, preserves the performance of known classes.
- Incorporated SAM and end-to-end Transformer architecture to make OWOD models competitive with OVD models.

NCTU – Individual Study

Sep. 2021 - Jun. 2022

Research student

Research Project: Near Real-Time Badminton Pose Analysis System

- Integrated camera system, MQTT service, image analysis, and body pose evaluation algorithms.
- Developed pose analysis algorithm by applying OpenCV and Google MediaPipe.

AWARDS & HONORS

- Outstanding Exchange Student Scholarship, NCTU, Taiwan *2023*
- Academic Achievement Award, NCTU, Taiwan *2021*

Courses

- Pattern Recognition (Graduate Level), Artificial Intelligence (Graduate Level) *2023*
- Image Processing (Graduate Level), Machine Learning, Natural Language Processing *2022*
- Computer Vision for UAV Autopilot, Numerical Methods, Artificial Intelligence Capstone *2022*