Kuan-Sheng 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 within computer vision and deep learning. 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 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, in 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*