CHI HANG, ANG

I was born in Malaysia and am pursuing my university education in Taiwan. For my Master's degree, I was involved in several projects that broadened my vision and knowledge of the construction sector, data analysis, AI, and computer vision techniques. I am very interested in 3D computer vision and hope to learn more and contribute.

EXPERIENCE

LEARNING EXPERIENCE

- Taken courses on data analytics, artificial intelligence, 3D computer vision, photogrammetry, web application development, BIM, and other Al-related topics.
- Familiar with structure-from-motion theory, point cloud registration, 3D deep learning, and 2D object detection and segmentation.

RESEARCH ASSISTANT, PROJECT INVOLVEMENT

National Taiwan University | August 2022 - July 2024

- perform CCTV-based construction site monitoring, using computer vision techniques such as small object detection, segmentation, and tracking with YOLO and transformer-based deep learning model.
- perform post-disaster recovery projects with digital twin technologies, like point cloud-based information collection, integrating 2D and 3D vision techniques for building damage recognition.
- perform wind speed prediction with machine learning and deep learning models. Experienced in data analytics, machine learning, neural networks, LSTM, and transformer-based models.

MASTER'S THESIS

My Master's thesis studied performing point cloud registration through line geometry.

- Self-designed a deep-learning model to perform 3D line feature encoding and matching.
- designed a line-based point cloud registration framework, including data collection, model architecture, model training, and validation pipeline.

EDUCATION

MASTER OF CIVIL ENGINEERING, DIVISION OF CONSTRUCTION MANAGEMENT

National Taiwan University | August 2022 to July 2024

BACHELOR OF CIVIL ENGINEERING

National Taiwan University | September 2018 to June 2022

PUBLICATION

Ho, C. Y., Cheng, K. S., & Ang, C. H. (2023). Utilizing the random forest method for short-term wind speed forecasting in the coastal area of central taiwan. Energies, 16(3), 1374.

SKILLS

- 3D computer vision, photogrammetry
- More than 3 years of experience in programming languages, including Java, C++, Python, R, SQL, git, and Linux bash operation
- Machine learning and Artificial Intelligence, familiar with the PyTorch, Scikit-learn framework.
- experience in web development and deployment using JavaScript, TypeScript, MongoDB, AWS services.
- Speak and write fluent Chinese and English
- Good communication and teamwork skills