Email: 1026oscar1@gmail.com linkedin/junw-liu Mobile: +886 933974081

EDUCATION

• National Taiwan University (NTU)

Taipei, Taiwan

Sept. 2020 - Jun. 2025

Bachelor's degree in Computer Science and Information Engineering Bachelor's degree in Sociology

Sept. 2021 - Jun. 2025

- Recipient of the 2020 National Taiwan University Fu Bell Entrance Scholarships (70 out of 3758 students).
- o Completed one-year exchange program at KTH Royal Institute of Technology in Sweden from 2022 to 2023.

EXPERIENCE IN COMPUTER SCIENCE

Thingnario

Taipei, Taiwan

Site Reliability Engineering Intern

Jun. 2023 - Aug. 2023

o Integrated testing scripts across diverse GCP servers using the centralized scheduler/runner Cronicle, consolidating error messages into an Elasticsearch-powered database for streamlined log analysis and more effective troubleshooting.

• Research Institutes of Sweden (RISE)

Stockholm, Sweden

Research Intern, supervised by Dr. Paris Carbone

Apr. 2023 - Jul. 2023

 Dockerized and refactored the Java-based throughput assessment of machine learning models across various stream-processing frameworks (e.g., Apache Flink, Kafka Streams, and Spark Streaming) to simulate real-world performance in an industrial setting, leading to its acceptance at EDBT/ICDT 2024.

Mobagel

Taipei, Taiwan

Software Engineer Intern

Jun. 2022 - Aug. 2022

- o Developed error codes for Decanter AI's AutoML Scala-based system, optimizing data processing, model training, and prediction request handling, which improved error message feedback on the web frontend.
- o Optimized the "sanitizing" module responsible for managing special characters in file headers during user dataset uploads, enhancing data quality and user experience.

Sensay

United States (Remote)

Machine Learning Intern

Jul. 2021 - Aug. 2021

- Enhanced automated speech assessment on Sensay's English learning platform by applying machine learning techniques from early ETS research (2008-2014), improving the scoring system based on the company's dataset.
- Developed an interactive audio visualization feedback system for language learning, integrating insights from academic research on acoustic feature visualization for pronunciation training, fostering a more engaging and effective platform for students.

• Innoveon

Taipei, Taiwan

Deep Learning Intern

Jul. 2020 - Sept. 2020

- Developed an image alignment algorithm for defect detection in racket production, incorporating techniques from four influential papers on convolutional neural networks (CNNs).
- o Conducted experiments on data augmentation using the company's dataset, applying feature disentanglement methods from three key papers on variational autoencoders (VAEs).

• Institute of Information Science, Academia Sinica

Taipei, Taiwan

High School Research Project, supervised by Dr. Li Su

Aug. 2018 - Jul. 2020

- o Published a first-authored paper "Body Movement Generation for Expressive Violin Performance Applying Neural Networks" in ICASSP 2020. [IEEExplore]
- Developed a neural network-based framework with Keras to generate expressive violin performance body skeletons.
- Conducted comprehensive subjective and objective evaluations to assess the likeness and naturalness of the generated skeletons.

EXPERIENCE IN SOCIOLOGY

• Institute of European and American Studies, Academia Sinica

Taipei, Taiwan

Research Assistant, supervised by Dr. Min-Hsiung, Huang

Apr. 2024 - Jul. 2024

• Analysed cross-national longitudinal datasets, such as Programme for International Student Assessment (PISA) and the Taiwan Educational Panel Survey (TEPS), to investigate educational inequality in Taiwan.

• Institute of Sociology, Academia Sinica

Taipei, Taiwan

Research Assistant, supervised by Dr. Hsuan-Wei Lee

Sept. 2021 - Feb. 2023

• Replicated 21 agent-based modeling papers from the sociology journals AJS and ASR using Python, ensuring rigorous reproducibility standards and enhancing the reliability of sociological research methodologies.

ACTIVITIES

• 2022 & 2023 APCS Camp

Taipei, Taiwan

C++ Lecturer

Mar. 2022 - Jul. 2023

 \circ Designed teaching materials and delivered online lectures on fundamental concepts of functions and recursion in C++ to 80 high school students, aiding their preparation for the Advanced Placement Computer Science (APCS) test in Taiwan.