Wei-Chun Huang (Alex Huang)
608-471-3887 whuang288@wisc.edu

Education

University of Wisconsin-Madison — Sep 2020 ~May 2024
B.S in Computer Science and Data Science — **Cumulative GPA: 3.97 / 4.0**

Technical Skills

Webpage https://whuang288alex.github.io/
Languages **Python, Java**, C++, C, SQL, MATLAB, HTML, CSS, JavaScript
Technologies **Pytorch,** Scikit-learn, Android Studio, Linux, SQLite3, GDB
Courses **Deep Learning**, **Computer Vision**, Algorithms (Honor), **Big Data Systems**, Database Systems, Operating Systems, Probability theory

Experience

Undergraduate Research Assistant (01/20/2023 ~ now)

Advisor: Prof. Yin Li

- Works on streamlining the **video feature extraction** process for action detection tasks. Built and maintained a repository that contains the code to extract features from video datasets using **vision models** such as slowfast, i3d, c3d, CLIP, etc.

Undergraduate Research Assistant (01/20/2023 ~ now)

Advisor: Prof. Timothy Rogers

- Works on projects that uses computational modelling techniques to study how humans understand concepts. Built a repository that helps Psychology researchers interact with **Large Language Models**. Learned **prompt engineering** skills.

Undergraduate Research Assistant (09/02/2022 ~ 12/14/2022)

Computational Materials Group

- Performed Data cleaning, Feature engineering, and **Model fitting** to predict properties of alloys based on features of elements using SciPy. Worked with multiple models including SVM, MLP, Random Forest, etc.

Undergraduate Teaching Assistant (09/02/2022 ~05/13/2023)

Department of Computer Sciences

- Held more than 60 hours of office hour and assisted more than 100 students for CS540: intro to artificial intelligence**.** Taught concepts such as PCA, clustering, **Machine/Deep/Reinforcement Learning**, NLP, Game Theory, etc.

Electrical Engineering Intern (06/27/2022 ~ 09/02/2022)

Zebra Technologies Taiwan Co., Ltd.

- Proposed the concept of a multi-function device. Built a model of the device with Nvidia Jetson Nano, which has an UI that can be navigated by hand gestures after connecting to Arduino board and stretch sensors. Implemented a facial lock with computer vision libraries and uses **multithreading** to improve performance.

Selected Projects

Real-Time Sign Language Translation System

- Developed a **computer vision application** that recognizes ASL characters at about **95% accuracy.** Implemented a modern multilayer **CNN** for image recognition using **Pytorch** framework, and built an **interactive webpage** that achieves live translation of sign language using **Open-CV** and **mediapipe**

Ghost Touch Detector APK

- **Proposed and developed** an APK that assists hardware engineers in testing the touch screens of the Zebra Touch Computer Series. Designed the ghost-touch-detecting feature to detect errors in the testing process and the path-replay feature to replay the testing process.