

Wei-Chun Huang

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Education

University of Wisconsin-Madison
B.S. in Computer Science and Data Science

Sep. 2020 - May 2024
Cumulative GPA: 3.97 / 4.0

Skills

Languages	Python, Java, JavaScript, C++, C, SQL, MATLAB, HTML, CSS
Technologies	PyTorch, React Native, Android Studio, Linux, GCP, AWS, SQLite3
Courses	Deep Learning, Computer Vision, Applied NLP, Artificial Intelligence (TA), Algorithms, Database Systems (TA), Operating Systems

Experience

Research Assistant

Jan. 2023 - present

Advisor: Prof. [Timothy Rogers](#)

- Works on building and tuning robust **Vision Models** that learn semantic features from images using hybrid loss function.
- **Visualizes** the performance of different models with **WandB** to communicate findings with Psychology researchers.
- Built a pipeline that helps Psychology researchers interact with **Large Language Models** such as GPT and FLAN using Python API.
- Acquired **Prompt Engineering** skills while working on **NLP**-related cognitive science projects.

Research Assistant

Jan. 2023 - present

Advisor: Prof. [Yin Li](#)

- Works on streamlining the **Video Feature Extraction** pipeline for **Temporal Action Localization** tasks.
- Built a repository that contains the code that extracts features from video datasets using mainstream models.
- Shortened the running time by **80%** through adjusting the code to work on large batch sizes and employing **Throughput Computing**.

Electrical Engineering Intern

Jun. 2022 - Sep. 2022

Zebra Technologies Taiwan Co., Ltd.

- Developed the **Route Planning** feature for a navigating device using Dijkstra's algorithms.
- Implemented a **User Interface** for the device, which can be controlled by hand gestures after connecting to Arduino Boards.
- Implemented a **Facial Lock** for the device and uses **Multithreading** to shorten the delay-time by **60%**.

Projects

Real-Time Sign Language Translation System

- Developed this Computer Vision Application that recognizes ASL characters at **95%** accuracy.
- Implemented the model using **Pytorch** and built an interactive webpage that accomplishes **Live Translation** using **Open-CV**

Ghost Touch Detector

- Developed this **Android App** that assists hardware engineers at testing the touch screens of the Zebra Touch Computer Series.
- Designed the ghost-touch-detecting feature and the path-replay feature to increase labor efficiency.
- Iteratively improved UI design and functionality to tailor to the needs of the engineering team.

Dev Job Board

- Developed this **Cross-Platform** mobile application with **React Native** and JSearch API.
- Created custom hooks to dynamically fetch developer job posts from platforms such as LinkedIn, Indeed, Glassdoor, etc.
- Implemented the Job searching and filtering feature to improve efficiency and user experience.

Mini-Rel

- Built a single user Database Management System with **C++** that can execute multiple SQL queries.
- Includes 5 layers: UNIX file system layer, buffer manager layer, heap file layer, query processing layer, and the user interface.

Travel Companion

- Developed this web application with **React.js** and **Google Map API** that can search for hotels and restaurants.
- Integrated with Weather API to adjust recommendations based on current weather and time.