# Shao Huang (Dennis) Hsu

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I am a proactive learner with innovative thinking, resilient under stress and excellent in teamwork. I thrive on challenges and continuously acquire new skills to stay ahead.

## **EDUCATION**

## **Bachelor of Science in Electrical Engineering**

National Taiwan Ocean University (NTOU), Keelung, Taiwan

Sep 2021 - Jan 2024

## **WORK EXPERIENCE**

## **R&D Test Engineer: Intern**

### HTC Corporation | New Taipei, Taiwan

Aug 2024 – Present

- Built an automated testing framework using Python to conduct repeated tests and analyze the
  resulting data. This approach significantly improved team efficiency with a 30% reduction in testing
  time and a 25% improvement in accuracy.
- Collaborated with the manager on various projects, contributing to the successful completion of five projects ahead of schedule and receiving positive feedback from the team lead.
- Utilized Android Debug Bridge to capture logs and analyze data from new products, identifying and documenting ten critical issues that improved product reliability by 20%.

## RESEARCH EXPERIENCE

Logo Tracking, Advisor: Chih-Wei Lin

Mar 2023 – Sep 2023

- Utilized the YOLO (You Only Look Once) model to train an object recognition algorithm, which successfully labeled a dataset of 300 custom photos.
- Developed Windows and mobile applications integrated with the Unity game engine, capable of instantly identifying targets and triggering video playback.

Low-Pass Filter, Advisor: Chung-Cheng Chang

Sep 2022 – Jan 2023

- Proposed and designed a low-pass filter to eliminate aliasing effects in circuits, ensuring stable circuit operation. (GitHub project: <a href="https://github.com/DennisHsu716/project2.github.io">https://github.com/DennisHsu716/project2.github.io</a>)
- Successfully manufactured and tested the low-pass filter, confirming its effectiveness in eliminating aliasing effects and enabling smooth circuit operation.

### PROJECT EXPERIENCE

#### Website Store, Oct 2023 – Dec 2023

- Developed a shopping website with a dynamic layout, using HTML, CSS, and JavaScript, designed to adapt to various device screens.
- Enabled multiple user interactions and order submissions.

## Exchange Rate Calculator, Feb 2023 – Apr 2023

 Developed an intuitive currency query and conversion application using HTML in conjunction with a real-time exchange rate API.

## Airplane Shooting Game, May 2024 – Aug 2024

- Developed a classic aircraft shooting game using Python's Pygame library.
- Implemented various game features, including keyboard aircraft controls to avoid obstacles and to shoot rocks for points.

## Video Image Detection, Feb 2024 - Apr 2024

- Developed a video image processing module to read video streams using MediaPipe.
- The module can analyze differences in various gestures.

#### Auto Fish Tank, Sep 2022 – Jan 2023

- Designed an automated aquarium system using Arduino, enabling microcontroller-based temperature monitoring and regulation to maintain ideal water temperature in real-time.
- Integrated LED indicators for alarm functions, enhancing the automation and intelligence of the aquarium.

## **SKILLS**

Programming languages: C/C++, Python, Java, JavaScript (including HTML, CSS), MATLAB, ADB (Android Debug Bridge), Unity (C#)

#### **EXTRACURRICULAR ACTIVITIES**

- Completed a 3km swim at the Sun Moon Lake International Crosslake Swimming Carnival in Taiwan, Sep 2024.
- Participated in the 3.5km Sanrio Characters marathon in Taiwan, Nov 2023.
- Earned open water diver certification from the Professional Association of Diving Instructors, Aug 2020.
- Held a Level C technician certification for interior wiring work, Sep 2019 Nov 2019