Shao Huang (Dennis) Hsu

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I am a proactive learner with innovative thinking, excelling in teamwork and resilience under stress. 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 by reducing testing time by 30% and increasing accuracy by 25%.
- 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 ADB 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

- Collected and labeled a dataset of 300 custom photos and utilized the YOLO (You Only Look Once) v5 model for training in object recognition.
- Developed an application system paired with the Unity game engine that can instantly identify targets and trigger video playback. It also supports packaging the application for mobile devices.

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: https://github.com/DennisHsu716/project2.github.io)
- 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

- Integrated and applied HTML, CSS, and JavaScript to develop a functional and visually appealing front-end web application, adapting the layout for various device screens.
- Facilitated user input, form submission, and interactive effects of page elements.

Exchange Rate Calculator, Feb 2023 – Apr 2023

- Utilized HTML in conjunction with a real-time exchange rate API as the foundation to develop an intuitive and practical currency query and conversion application.

Airplane Shooting Game, May 2024 – Aug 2024

- Focused on utilizing Python's Pygame library to design a classic aircraft shooting game.
- Implemented game features, including player control of an aircraft using keyboard operations, avoiding rocks, and shooting rocks to gain points.

Video Image Detection, Feb 2024 – Apr 2024

- Swiftly read video streams using MediaPipe with Python.
- Utilized the MediaPipe processing module to visualize and further 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 PADI (Professional Association of Diving Instructors) Open Water Diver certification, Aug 2020.
- Held a Level C technician certification for interior wiring work, Sep 2019 – Nov 2019