David, Sung-Yan Hsieh

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David Hsieh is a MSCS student with one year of self-taught experience in Frontend and Software Engineering.

SKILLS

Programming Languages	Technologies	Tools
• JavaScript	• HTML5/CSS3	• VScode
• Python	• BootStrap4	• IntelliJ
• Java	• Git	• Heroku

PROJECTS

BearMaps – Website   **Java, KDTree, Priority Queue, A* Algorithm, Trie, Heroku**

- Implemented the backend data structure and algorithms of a web application that resembles the features of Google Map including rastering , routing(finding the shortest path), autocomplete searching and navigation direction functions.

Percolation – Java application   **Java, Disjoint Set, Monte Carlo Simulation**

- Achieved the visualization of percolation by building Disjoint Sets data structure and calculate Monte Carlo simulation.

Personal Website – Website   **HTML, CSS, JavaScript, BootStrap**

- Designed a website and enhance user interface and experience by using using HTML5, CSS3, JavaScript and BootStrap framework.

Weather Bot – Discord bot   **Python, Discord API, OpenWeatherMap API, Heroku**

- Launched an online bot using Discord API, coded in Python and hosted on Heroku. Respond to user's concurrent weather, anytime, anywhere using OpenWeatherMap API.

PM 2.5 Detector – Android application   **Java, Arduino, Android Studio, Blender**

- Developed an Android application using Java and connected it with Arduino air quality sensor (PMS3003) by Bluetooth module.
- Designed the model of airbox to place the sensor by Blender, constructed with 3D printing.

WORK EXPERIENCE

Taipei City Hall   **Taipei, Taiwan**

Alternative Military Service   Sep. 2020–Feb. 2020

- Catalog official documents of the Taipei City Government and maintain its website

Greennet Orchid Company   **Chongqing, China**

Summer Internship   July 2017–Aug. 2017

- Evaluated and determined the ideal environment for orchid flower growth by analyzing fertilizer proportion data

EDUCATION

University of California, San Diego (UCSD)   **La Jolla, CA**

M.S. in Computer Science and Engineering   Sep. 2021–June 2023(expected)

National Cheng Kung University (NCKU)   **Tainan, Taiwan**

B.S. in Life Science   Sep. 2016–June 2020