Sung-Yan(David) Hsieh

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Self-taught experience in Frontend and Software Engineering.

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

SKILLS

Programming Languages: Python, Java, JavaScript, C++, Haskell

Technologies: HTML5, CSS3, BootStrap, Node.js

Tools & OS: VSCode, IntelliJ, Heroku, Git, MacOS, Windows, Linux Ubuntu

PROJECTS

Personal

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 water 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.

Group

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

- Developed an Android application with intuitive UI design 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.
- Delegated tasks with other two group members by organizing the project into design, develop and marketing parts. Solved problems by communicating and separating technical problems into manageable tasks and earned a top grade.

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.
- Followed through the entire manufacturing process in a startup company including tissue culture, large-scale planting to marketing strategies.