

# 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.