

# **Build Instructions**

for best results, please use a UNIX-based system with the latest version of python3 installed

- 1. cd into same directory as this README doc
- 2. if necessary, give execution permission to test script using chmod +x ./test
- 3. run test script with ./test

If you wish to test each solution individually, you must cd into the relevant directory (./q1 or ./q2) and run the main.py script with the correct arguments:

- for ./q1, the main.py script takes args: [CONFIG FILE]
- for ./q2 , the main.py script takes args: [RADIUS] [POINTS FILE]

You may wish to run cat ./test to inspect the contents of the test script.

# Why Did I Use Python?

I used python to complete these challenges because it is the language with which I am most comfortable and have the most experience. I also have a good amount of experience with JavaScript and C++.

#### **Comments**

For the Super Word Search, I created a Grid class to encapsulate the data that I would be working with. I computed hash tables with key pos for every "position" on the board. The position hashes were computed using the \_\_position method, and they had the form "{i}-{j}", where (i, j) are the position coordinates in the 2D array, rows, which represents the grid. With hash tables for coordinates, letters, and adjacent\_positions, I wrote a recursive find method which I ran for every position on the grid.

The Nearest Neighbors Algorithm challenge was rather simple.

Both super\_word\_search and nearest\_neighbors are designed to be standalone modules.

### Contact

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