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## Skills

- Web Development in CSS, HTML, JavaScript and React
- Data Analysis and Data Frames in SQL, R, and Python
- Advanced Data Structures and Algorithms in C++, Python, and Java
- Principles and Theories of Data Science
- Web scraping, Data Granularity, Permutation Tests, Imputation
- Data Visualization, Wrangling, Analysis
- Statistical analysis, Predictive Modeling, Machine Learning Models
- Python Packages: BeautifulSoup, Scikit, Sklearn, Seaborn, Matplotlib, NumPy, Regex, Pandas

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## Education

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**University of California, San Diego** / Data Science B.S.  
2018-2021, La Jolla (Attending)

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## Extracurricular

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### UC San Diego Triton<sup>3</sup> Electronics/Software Team:

Custom PCB design using Altium Designer 19, the industry's choice on PCB design software.  
Coding on the PIC24 architecture using MPLAB.

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## Projects

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### Sudoku Puzzle: (C++)

Allows the player to select from 4 difficulties, records the scores from each playthrough, calculates and shows the player some statistics once the puzzle is solved.

### Yelp Restaurant Maps: (Python)

Gives a map of restaurants that contains where the restaurant is located and the reviews, containing a variety of data.

### Ants vs Bees: (Python)

Inspired by the game 'Plants vs Zombies'. Allows you to create your own ants.

### Huffman Tree Codec: (Java)

Converts ASCII characters into bits, and bits into ASCII characters through a Huffman Tree.

### Spell Checker: (Java)

Checks the input if it matches or resembles any word in the dictionary.

### CRISPR: (Java)

Alter DNA sequences and modify gene functions.

### Machine Learning Models: (Python)

Can be found on github and my portfolio website.

### Global Dashboard: (JavaScript)

Map chart that shows some statistics and plots of each country when clicked.

### ESP32 Device Analysis: (Python, SQL, JavaScript, C)

Fully implemented from scratch. Used ESP32 Device to detect temperature and humidity and performed some analysis to make some types of conclusions about the data.

