

## 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, Neural Networks
- Python Packages: BeautifulSoup, Scikit, Sklearn, Seaborn, Matplotlib, NumPy, Regex, Pandas, PyTorch

## Education

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

## Extracurricular

### **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.

## Projects

### **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.