

# Raymond Ruan | [zhongjie.ruan@gmail.com](mailto:zhongjie.ruan@gmail.com) | 720-616-0684 | [linkedin.com](https://www.linkedin.com) | [github.com](https://github.com/zhongjieruan.com) | [zhongjieruan.com](https://zhongjieruan.com)

## EDUCATION

### UNIVERSITY OF COLORADO, BOULDER

#### Bachelor in Computer Science | GPA - 3.8/4.0

May 2019

Computer Systems, Software Development, Data Mining,  
Master-Level Algorithms, Data Structures, Object-Oriented Design,  
Principle of Programming Language.

#### Minor in Technology, Arts & Media

Aug 2015 - May 2019

## PROFESSIONAL EXPERIENCE

### Freelancer, Software Engineer

Python, SQLite, Java, Bluetooth, Firebase | May 2019 - Aug 2019

- Developed an **offline** bike rental system, provided a customer facing **Android** Application in **Java**, that allows the user to rent bikes by using **Bluetooth**.
- Created a **Microservice** with **JavaScript** and **Python** to calculate users' risk score based on their past habit.
- Built a **Gossip protocol**, enabling the bike to send unique offline transactions to surrounding bikes, reducing the data redundancy in transition by 90%.
- Programmed Raspberry Pi in **Python**. Localized offline transactions by using **SQLite3**.

### University of Colorado, Student Software Engineer

Node.js, Express.js, MongoDB | May 2019

- Developed a blogging site for client, utilizing **Node.js**, **Express.js** and **MongoDB**, reduced timeline by 25%.
- Architected the backend system by applying the **MVC** structure and the **template engine** to modularize reusable components, increased the maintainability and reduced **DRY** code.

Java, Python, Flask, | March 2019 - May 2019

- Built a sneaker retail app from scratch that allows the user to create their design by using **Python**, **Flask**, **Java**, **OpenCV**.
- Implemented a sneaker recommendation system based on a **Generative adversarial network**. Parsed JSON data by calling the Spotify API, analyzed and modified the un-organized data to relational data before sending them into **GAN**.

### Liveloal, Software Engineer Intern

JavaScript, MySQL | Jun 2018 - Aug 2018

- Developed a WordPress application for a local Award-Winning Startup that allowed users to find their nearby events. Estimated delivering \$80,000 in revenue for the event host per day after launching.
- Defined a field in MySQL that allows users to upload location-based information, fetched the corresponding data and sending to GoogleMap API.
- Designed an interactive front end application that is expected to increase the site's click-through rate.

## SKILLS

### PROGRAMMING

Python, Java, C++, NodeJS, HTML, CSS, JavaScript

### PLATFORMS/TOOLS

ExpressJS, GitHub, Android Studio, Raspberry Pi,  
Socket Programming, Bootstrap

### DATABASES/TESTING

SQLite, MySQL, Firebase, MongoDB, Redis,  
Unit Testing

## PROJECTS

### Donationizer | [Github](#) | Java, SQLite, Firebase

Developed a full-stack donation application which allowed users to post and receive donations. Implemented using **Java** along with **Facade** Design Patterns.

### Box Chaser | [Github](#) | JavaScript

Implemented a board game that takes keyboard inputs from Javascript **Event Listeners**, allowed the user to manipulate the JavaScript object dynamically.

### Traveler's Guide | [Github](#) | C++, Dijkstra's Algorithm

Implemented a **C++** application that selects the most optimal routes based on the users' landscape preferences; Enabled shortest path calculation by using **Dijkstra's** algorithm.

### Temper | [Github](#) | PHP, MySQL, HTML

Developed a **temperature monitoring system** which allowed users to see recent / future temperature trends on the website. Utilized **PHP**, **MySQL** and **HTML**.

### Newegg Parser | [Github](#) | Python, BeautifulSoup

Implemented a web scraping program in **Python** using **Beautifulsoup** library that harvests the Newegg product information and display the updated and organized data on the terminal.

### Amazon Reviewer | Python, Panda, Numpy

Analyzed what makes Amazon review helpful based on review history across multiple product category using Panda and Numpy library. It's expected to increase the accurateness of differentiating helpful reviews.

### Snake Game | [Github](#) | Python

Implemented a snake game in **Python** that receive user's keyboard input to control the movement of the snake in the terminal.

### Project Automation | [Github](#) | Python, Shell

Implemented **Shell/Python** scripts that automates the process of creating new GitHub project repositories and adds the remote repositories to local file directories.

### Personal Portfolio | [Website](#) | JavaScript

Built a personal portfolio website from scratch using HTML and CSS. Implemented with UI and UX design principle to increase the usability of the website.