# **CARLETON ZHAO**

Software Developer

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## University of California, Irvine

BS in Computer Science, expected in June 2021 GPA 3.5 / Major GPA 3.8

#### **Competitions**

- FIRST Robotics Competition
- VEX / VEX U
- Micromouse
- Hack UCI 2019
- SLO Hacks 2019
- Hack UCI 2018
- LA Hacks 2018

#### **Programming Languages**

- Javascript
- C++
- Python 3
- MIPS Assembly
- Java
- HTML / CSS

#### **Technical Skills**

- Git / Github
- PID Control Loops
- Bootstrap
- React Native
- Firebase
- Data Structures / Algorithms

#### Awards

- Hack UCI 2019 Best Joke Hack
- FIRST Robotics
  Competition 2017 Regional Finalist

#### Misc.

• U.S. Citizen

## **EXPERIENCE**

#### Software Developer - Ureka Science

July 2018 - Present

Ureka is a social media mobile application that allows researchers to post their findings. The app has over 500+ downloads. Learned and used the React Native framework to develop Ureka. Implemented many new features including blocking and reporting users as well as toggling notifications on and off. Fixed reported bugs. IOS | Android

## **Lab Tutor - UCI Information and Computer Science**April 2018 - June 2018

Worked with professors and TAs to give feedback on student's coursework. Guided students in identifying bugs in their code and explained programming concepts such as classes, dynamic typing, and APIs. Assisted about 20 students per day, for 4.5 hours per week over 10 weeks.

### **PROJECTS**

## Hack UCI 2019 February 2019

Created a mobile application that allows users to rate and review restrooms around them. The app can also point users to the closest restrooms in emergency situations.. Developed the user interface in react native and connected the front end to a Firebase realtime database. This app won Best Joke Hack at Hack UCI 2019.

#### **Minimax Tic-Tac-Toe**

August 2018

Built smart tic-tac-toe player using minimax algorithm in Python 3. Implemented Alpha-Beta Pruning, which increased performance by 80%.

#### **T-Shirt Cannon - Zotbotics**

August 2018 - September 2018

Collaborated within a team of 6 people to build a robot that shoots t-shirts. Learned about the design process of building a robot. Helped put together the bill of materials. Wrote the code to control the cannon's release mechanism. Using air pressure, the t-shirt cannon is able to shoot a t-shirt over 30 feet.

#### **LA Hacks 2018**March 2018

Worked in a team of 5 students to design a web application in 36 hours, which helps students choose a major. Programmed interface between the front and back end using the Firebase API.

## **Programmer - FIRST Robotics High School Team**August 2014 – June 2017

Helped determine robot requirements and built robots from start to finish. Developed the team's first control algorithm using C++. Inspired other programmers to continue researching and developing better control algorithms. Team qualified as one of 401 teams out of 6000 to take part in the 2017 FRC World Championships in Houston.