

# KYLE TSE

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## EDUCATION

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**University of California, Berkeley**  
B.A. Computer Science

*Expected Spring 2020*  
GPA: 3.70

## EXPERIENCE

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**University of California, Berkeley**  
*Undergraduate Student Instructor*

Berkeley, CA  
*June - August 2018*

- Led weekly discussions and office hours to solidify understanding for CS70 (Discrete Math and Probability Theory)

*Tutor*

*September 2017 - Present*

- Led weekly discussions to review material for CS61A (Introduction to CS)

**Berkeley RISE LAB**  
*Undergraduate Researcher*

Berkeley, CA  
*September 2017 - June 2018*

- Reviewed and brainstormed behavioral interventions to reduce carbon footprint
- Redesigned mobile application UI using Ionic framework
- Analyzed and performed permutation tests on carbon footprint and app usage

## PROJECTS

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### **Catan Python**

*Strategy that aims to win Catan in the fewest moves possible*

- Optimized strategy based on expectation, entropy, and Markov chains
- Top 3 strategy in class

### **NBA Streams JavaScript**

*Google Chrome Extension that finds streams to live basketball games*

- Scraped data from Reddit and NBA APIs for links of all ongoing games
- Used cookies to save game information and user preferences

### **Halcyon Stats Ruby on Rails, JavaScript**

*Website that tracks a player's statistics for Vainglory*

- Utilized ActiveRecord database to store and analyze information about matches and players
- Parsed JSON from Vainglory API and generated infographics for data visualization

### **School RPG JavaScript**

*Web game based on Pokemon mechanics and gameplay*

- Designed characters, maps, and other displays with JavaScript
- Integrated heavy use of object-oriented programming to generate characters and in-game objects
- Implemented a save-state feature by creating and updating HTTP cookies

## SKILLS

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**Languages & Frameworks**

Python, Java, JavaScript, Ruby on Rails