

# Aaron Chen

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## Education

### University of California, Berkeley

Expected Spring 2021

Computer Science, B.A.

- 3.75/4.00 GPA
- Coursework
  - (CS 61B) Data Structures
  - (CS 61C) Computer Architecture
  - (CS 70) Discrete Math and Probability Theory
  - (CS 170) Algorithms
  - (CS 188) Artificial Intelligence
  - (Math 110) Linear Algebra

## Experience

### Software Developer

August 2018 - Present

UC Berkeley EECS Department

- Work with team of 4 to improve auto-grader used to grade assignments for thousands of students
- Implement API endpoints to query MongoDB database for user and assignment information
- Build user-friendly dashboard with multiple tabs, using jQuery to display data dynamically
- Modularize server code, reducing the length of the longest file from 850+ lines of code to less than 350 lines

### Undergraduate Student Instructor (Teaching Assistant)

Jan 2018 - Present

UC Berkeley EECS Department

- Teach weekly lab and discussion sections for introductory course CS61A
- Help students at office hours with concepts like Recursion, OOP, Data Abstraction, Linked Lists, and Trees

## Projects

### Bugspray

github.com/aaronchencal/bugspray

- Developed a full stack web application that explains the error traceback of faulty Python code
- Wrote backend with the Flask framework that runs user-submitted Python code in individual processes
- Designed lightweight frontend that uses JavaScript to query the API for error analysis

### Picky

github.com/aaronchencal/picky

- Developed an iOS application in Swift that helps users decide where they should eat
- Using the Swift Vapor Framework, created a server that communicates with Yelp Fusion API
- Persisted user data and tracked logins with Firebase
- Designed application UI with XCode Storyboards

### NBA Analysis

tinyurl.com/nba3shot

- Analyzed 3-point shot efficacy in the NBA using Python to obtain and analyze data
- Used Pandas and BeautifulSoup libraries for scraping and manipulating relevant data from reference website
- Graphed P-values from using the SciPy library to conduct several linear regression tests on the scraped dataset

### Whiracle

github.com/aaronchencal/whiracle

- Created a multiplayer shooting game using Java, configured for two players over a local network
- Built server-client architecture with Java Sockets
- Encoded game state to be sent efficiently to and from the server, allowing synchronization across clients
- Ran graphics and implemented user controls with Java Swing

## Skills

**Proficient:** Python, Flask, Java

**Intermediate:** Swift, JavaScript, jQuery, HTML/CSS