

# John A. Schulz

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## Education:

**University of California, Berkeley**  
**Computer Science**  
GPA: 3.53

*Spring '21*

## Skills:

Python, Java, JavaScript, React.js, Django,  
C, HTML, CSS, Github, NumPy, Pandas,  
REST API, Heroku, Illustrator, Photoshop

## Professional Experience:

### **Google Online Marketing Challenge, Berkeley, California**

*August '19 - present*

#### **Undergraduate Researcher |**

- Selected among 300 candidates to participate in the Google Online Marketing Challenge with three fellow students.
- Paired with a non-profit and given \$10,000 to further develop and increase the efficiency of their advertising scheme.

### **CS61B : Data Structures, Berkeley, California**

*January '19 - present*

#### **Computer Science Mentor |**

- Independently teach weekly six student discussions to cover course material and plan review sessions for exams.
- Help create review worksheets on important data structures that are covered throughout the course.

### **Dean's Office, College of Engineering, Berkeley, California**

*August '18 - May '19*

#### **Assistant |**

- Managed various projects including data entry, tracking budgets, online research, web-editing, and event preparations.
- Applied expertise in SQL, Python, Excel, HTML/CSS, and the Adobe Suite to expedite project development process.

### **CS61A : The Structure & Interpretation of Computer Programs, Berkeley, California**

*August '18 - May '19*

#### **Academic Intern |**

- Instructed weekly labs and office hours for CS61a, the first and most important Computer Science course at Berkeley.
- Sacrificed personal work to assist students in understanding concepts and completing very difficult course projects.

### **Schmooze, Berkeley, California**

*October '17 - March '18*

#### **Product Development and Marketing |**

- Learned and applied Swift, Objective-C, and version control during the development of the company iOS app.
- Brainstormed and worked collectively with a group of 10 experienced programmers through GitHub.

### **Northmoor Country Club, Highland Park, Illinois**

*May '15 - August '18*

#### **Head Lifeguard |**

- Managed pool operations, budgeting, recruitment, and scheduling of a group of 15 lifeguards.
- Created a Python Script with Google Sheets API to meet bi-weekly budgets and optimize scheduling for employees.

## Project Experience:

### **SpotifyUp |** Web application for users to login with Spotify, see their playlists, and filter with keywords.

*July '19*

JavaScript, React, Heroku web hosting, Spotify API, Promises, Map/Reduce, HTML, CSS.

### **Twitter Tweet Analyses |** Generates a graph comparing likes and retweets of any twitter account.

*April '19*

Python, Twitter API, NumPy, Pandas, user input, command line prompts.

### **Graphs |** A complete graph package implemented with a GNU make and navigation client.

*December '18*

Java, Traversals, Depth First Search, Breadth First Search (postorder and preorder), Dijkstra's, A\* search.

### **Game of the Amazons |** A 10 by 10 board game implemented with a AI opponent.

*November '18*

Java, Game Trees, Minimax, Alpha-Beta Pruning, AI, GUI, Model-View-Controller.

### **Enigma |** Modeled the physical Enigma Machine into a computer program.

*October '18*

Java, Encryption, Alphabets, Input/Output Files, Classes/Interfaces, Hashing, Unit and Integration Tests.

## Current and Completed Course Work:

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|---|--|
| ▪ <u>CS188: Artificial Intelligence</u>                       | ▪ CS61C: Great Ideas in Computer Architecture                |
| ▪ <u>DATA100: Principles &amp; Techniques of Data Science</u> | ▪ CS70: Discrete Mathematics & Probability Theory            |
| ▪ <u>STAT133: Concepts in Computing with Data</u>             | ▪ CS61B: Data Structures                                     |
| ▪ EE16A/B: Designing Information Devices and Systems          | ▪ CS61A: The Structure & Interpretation of Computer Programs |