

# John A. Schulz

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## Education:

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

*Spring '21*

**Highland Park High School**  
Honor Society | High Honor Roll |  
GPA: 4.38 weighted, 3.75 unweighted

*Spring '17*

## Professional Experience:

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

*August '18 - May '19*

**Assistant |**

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

**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.

**CS61A : The Structure & Interpretation of Computer Programs, Berkeley, California** *August '18 - present*

**Academic Intern |**

- Instruct 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**

**Head Lifeguard |**

*May '15 - August '18*

- 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:

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