# John A. Schulz

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**Education:** Skills:

University of California, Berkeley

Computer Science

GPA: 3.47

Summer '20

Python, Java, JavaScript, React.js, Golang,
Django, C, HTML, CSS, Github, NumPy,
Pandas, Scikit, SQL, REST API, llustrator

# **Professional Experience:**

#### **Sony Music Entertainment (Arista Records)**

December '19 - present

#### Research Consultant |

- Responsible for delivering daily analytics on trending music and potential artists for Arista Records to acquire.
- Building analytical tools using webscrapping, APIs, and many python packages to recognize trends and deliver data.

# Google Online Marketing Challenge, Berkeley, California

August '19 - December '19

#### **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 - December '19

#### **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.

# **Project Experience:**

**Pacman** | The game of Pacman configured with search algorithms and reinforcement learning.

October '19

Python, Game Trees, Minimax, Alpha-Beta Pruning, AI, A\* search, Value Iteration, Policy Iteration, Q-Learning

**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.

**Car with Speech Recognition** | Car built from circuit components controlled by voice commands. *April '19* C, Feedback Control, Band Pass Filters, Principal Component Analyses, Single Value Decomposition, Discrete Fourier Transformations.

**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.

# **Current** and Completed Course Work:

- CSW186: Database Systems
- CS161: Computer Security
- CS188: Artificial Intelligence
- DATAC100: Principles & Techniques of Data Science
- CS61C: Great Ideas in Computer Architecture
- EE16A/B: Designing Information Devices and Systems
- CS61B: Data Structures
- CS61A: The Structure & Interpretation of Computer Programs