

# BRANDON DAVID

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## EDUCATION

### UNIVERSITY OF CALIFORNIA, BERKELEY

B.S. Electrical Engineering & Computer Science

Expected Graduation - May 2021

Technical GPA: 3.6

#### RELEVANT COURSEWORK

[intended] Machine Learning - Optimization Models  
[intended] Databases - Artificial Intelligence  
- Advanced Algorithms - Computer Security  
- Data Structures - Computer Architecture  
- React Development - Discrete Math & Probability  
- iOS Development - Linear Algebra & Circuits  
- UI Design & Development - Multivariable Calculus

## SKILLS

### FRONTEND

- React, Redux, JavaScript, HTML, CSS

### CODING

- Python, Swift, Java, C, Scheme, Ruby

### OTHER

- Android Studio, Firebase, SQL, MongoDB,  
Node, Spark, MapReduce, Assembly,  
Adobe Creative Cloud, Figma

## PROJECTS

### SIX STRINGS

AUGUST 2019 - PRESENT

<https://github.com/brandonhudavid/six-strings>

React and Redux web application that tracks progress of guitar songs I am learning.

- Implemented CRUD API to create new song entries, update song progress, and delete songs from website.
- Used Material-UI to show song entries in tabular format, reveal modals for user input.

### STRANGLER

JULY 2019 - AUGUST 2019

<https://github.com/brandonhudavid/strangler>

Python script that advises calculated stock option strangles by retrieving data from companies' past earnings reports.

- Referenced NASDAQ earnings analysis to determine fiscal quarter ends and earnings report dates.
- Utilized Alpha Vantage's stock history API to retrieve open and close prices of stocks in previous quarters.

## EXPERIENCE

### SOFTWARE ENGINEER INTERN

JUNE 2019 - AUGUST 2019

#### OPTIMIZEZLY

- Implemented frontend changes in customer-facing React web application to account for vertical expansion.
- Created design docs, implemented idiomatic methods for JavaScript, Python, Ruby SDKs of A/B testing product.
- Improved security in Swift SDK by implementing SSL pinning with URLSession delegates to prevent MITM attacks.

### RESEARCH ENGINEER INTERN

JUNE 2018 - AUGUST 2018

#### HERE TECHNOLOGIES

- Developed tools utilized by PhD computer vision researchers and autonomous vehicles to visualize road features.
- Improved graph generation runtime by 95% by refactoring Python codebase with PyPy to optimize algorithm performance.
- Collaborated with Chicago office to aggregate LiDAR sensor data with panoramic highway photos.

### DESIGN LEAD

AUGUST 2018 - PRESENT

#### iOS DEVELOPER

##### MOBILE DEVELOPERS OF BERKELEY

- Leading team of 5 designers to provide design consultation for product teams, create branding guide for marketing events.
- Created mobile application for Ford's UAV department to facilitate management of drone flights.

### ACADEMIC INTERN

JANUARY 2018 - MAY 2018

#### UC BERKELEY CS DEPARTMENT

- Assisted UC Berkeley computer science students in introductory computer science course about Python, SQL, Scheme.
- Facilitated sections and office hours with teaching assistants.

### ENGAGE

SEPTEMBER 2018 - DECEMBER 2018

<https://brandonhudavid.com/#/engage>

Cross-platform mobile application that facilitates discussion between students and instructors in the classroom.

- Collaborated in a team of 5 developers to create app on iOS and Android platforms.
- Used Firebase backend to store data for teachers' sections and users' sessions.

### SAFELY

MARCH 2018 - MAY 2018

<https://brandonhudavid.com/#/safely>

iOS application helping users travel safely to destinations.

- Referenced Berkeley Police Department's crime activity dataset to determine and avoid dangerous routes.
- Used HERE Technologies's routing API to route users to destination with safest path possible.