# SAJAL SHARMA

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#### education

## University of California, Berkeley

Berkeley, CA

August 2017 - May 2021

**GPA: 3.8** 

BA Computer Science, BA Economics

- Completed Coursework: Data Structures and Algorithms, Discrete Mathematics and Probability Theory, Data Science, Designing Information Devices and Systems, Probability and Mathematical Statistics in Data Science
- Current Coursework: Artificial Intelligence, Efficient Algorithms and Intractable Problems, Multivariable Calculus

# experience

## **UC Berkeley College of Engineering**

Course Staff

August 2018 - December 2018

- Led office hours to help students strengthen their understanding of Discrete Mathematics and Probability Theory
- Aided in the instruction of stable marriage algorithm, modular arithmetic, RSA encryption, statistics, and probability

### RoboBears at UC Berkeley

Web Developer

July 2018 - Present

- Redesigned and manage the website for RoboBears with new developments, including recruitment and projects
- Improved navigation and user experience by better organizing content

### **Berkeley Institute of Data Science**

Undergraduate Researcher

September 2017 - May 2018

- Created API packages that allow users to search for datasets by keywords and load results into Jupyter Notebook
- Designed an extension to help visualize and explore data within Dataverse using Jupyter Notebook

# projects

#### **Waste Less**

Personal Project

November 2018

- iOS app with Firebase back-end integration that tracks the expiry dates of produce and helps eliminate food waste
- Scans barcodes and QR codes using the AVFoundation framework to add new items to the user's fridge
- Provides analytics on food waste habits using Map Kit and Charts

#### **Amazons**

Personal Project

October 2018

- Developed an AI for the two-player strategy game that finds the optimal move using a minimax algorithm
- Uses alpha-beta pruning to efficiently traverse the game tree when the search depth or branching factor is high

# **DoEverythingBar**

Cal Hacks

October 2017

- Designed a command interpreter for web browsers that allows general users to control everyday applications
- Added Google Suite and Skype functionality by using the Google Maps, Google Calendar, and Skype Call APIs
- Integrated OAuth authentication to securely gain access to and write to a user's account

#### skills

- Programming Languages: Python, Java, HTML, CSS, Swift, SQL, Scheme
- Libraries and Frameworks: NumPy, Pandas, Scikit-learn, Seaborn, Matplotlib, JUnit, Bootstrap
- Platforms and Services: Git/GitHub, Firebase, Google APIs

#### honors and awards

Dean's Honor List

August 2017 - August 2018

Best Web Application at Cal Hacks

October 2017

Cal Hacks Finalist (top 6 among 216 team entries)

October 2017

Summa Cum Laude

May 2017