

# SAJAL SHARMA

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## education

### University of California, Berkeley

Berkeley, CA

August 2017 – May 2021

BA in Computer Science, BA in Economics

GPA: 3.8

- **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, Microeconomic Analysis

## experience

### Computer Science Mentors

Junior Mentor

August 2018 – Present

- Lead an adjunct section to help students better their understanding of Discrete Mathematics and Probability Theory
- Cover stable marriage algorithm, graph theory, modular arithmetic, RSA encryption, Markov chains, and statistics

### 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