



# CINDY X. ZHANG

COMPUTER SCIENCE, B.A.

## EDUCATION

University of California, Berkeley  
2018-2022 | GPA: 4.0

Technical Courses:

- Structure and Interpretation of Computer Programs (CS61A)
- Data Structures (CS61B)
- Machine Structures (CS61C)
- Discrete Math and Probability (CS70)
- Linear Algebra and Differential Equations (Math 54)

In progress: Artificial Intelligence (CS188), Efficient Algorithms and Intractable Programs (CS170), Designing Information Devices and Systems II (EE16B)

## SKILLS

### Fluent:

- Python, Java, C
- React, Redux, HTML, CSS, JavaScript
- Technical writing, teaching, git

### Developing:

- MERN Stack:
  - MongoDB, Express, React, Node.js
- Pandas

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## EXPERIENCE

### Triton | November 2019 - Present

Front End Intern

- Redesigned and revamped Triton's website using React and Redux
- Created the frontend interface for customers to sign up or to request a demo, and this automatically sends a slackbot notification to Triton
- Improved the UI of the data dashboard to be more user-friendly, intuitive, and visually aesthetic

### Dolby Laboratories | May - August 2019

Platform QA Intern

- Scripted in Python to generate output from research binaries and configuration files to verify Dolby Vision's video compression algorithm
- Integrated pytest in testing scripts to automate the process
- Refactored and adapted scripts to be more scalable, versatile, and efficient

### Berkeley CS61B Tutor | August 2019 - Present

Course Staff

- Taught a group of CS61B students 2x/week and ran office hours 1x/week
- Developed worksheets to teach in sections
- Assisted students with projects, homework, and labs
- Graded and proctored exams

### Computer Science Mentors | January 2019 - Present

CS61A Mentor, CS61B Mentor

- Taught a group of students 1x/week
- Developed course material for weekly learning and exam reviews

## PROJECTS

### Blackjack Bot

Python, React, CSS

- Built bots that hit/stayed according to a basic blackjack strategy or hit if the probability of losing is below a defined threshold
- Generated data from simulated games to test correct implementation of bots and visualize win rates dependent on strategy and starting cards
- Created a website as an interface to easily run simulations and view results

### Musique

MERN: MongoDB, Express, React, Node.js

- Web application that allows individuals to add songs to a shared queue
- Integrated the Spotify Web API to retrieve user information and allow easy access to saved songs in their account

### Expense

React, CSS

- Budgeting web application to help users track their finances
- Included features like logging transactions, managing spending limits, and setting saving goals

### 2D Maze Game

Java

- Used Weighted Quick Union data structure and Prim's Algorithm to create a 2D world with connected rooms and hallways
- Included a keyboard-controlled avatar whose objective is to travel to a randomly generated target (player could only see a small radius of the world)

### Virtual Reality Research

Unity3D, C#

- Created a virtual environment using Unity 3D to host different virtual humans to test which traits are more responsible for their human resemblance
- Conducted study with over 100 participants

## AWARDS / HONORS

- UPE - CS Honor Society (2020)
- UC Berkeley Kraft Award (2019)
- Cal Leadership Award (2018)
- National Merit Scholar (2018)