CINDY X. ZHANG

COMPUTER SCIENCE, B.A.

EDUCATION

University of California, Berkeley

2018-2022 | GPA: 4.0

Technical Courses:

- Efficient Algorithms and Intractable Programs (CS 170)
- Artificial Intelligence (CS 188)
- Structure and Interpretation of Computer Programs (CS 61A)
- Data Structures (CS 61B)
- Machine Structures (CS 61C)
- Discrete Math and Probability (CS 70)
- Linear Algebra and Differential Equations (Math 54)

Fall 2020: Operating Systems (CS 162), Database Systems (CS 186), Principles and Techniques of Data Science (Data 100)

SKILLS

Fluent:

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

Developing:

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

cindyxzhang@berkeley.edu

(408) 207-6413

linkedin.com/in/cindy-x-zhang

cindyzhang977.github.io/cindyxzhang

EXPERIENCE

Google | May - August 2020

STEP Intern

- Currently learning how to build and deploy a web application from start to end
- Practicing writing robust and self-documenting code

Berkeley CUBES | March 2020 - Present

Researcher

- Developed object oriented models to simulate and optimize a biologically-driven Mars exploration mission
- Integrated five different systems that composes the reference mission

Triton | November 2019 - February 2020

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, which automatically sends a slackbot notification to Triton

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

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

PROJECTS

Minimum Dominating Network Approximation

Python, NetworkX

- Approximation algorithm to solve NP-Hard problem of finding a dominating network tree where pairwise distance between vertices is minimized
- Greedily constructed a tree whose vertices are a dominating set, then used simulated annealing to improve upon minimizing pariwise distance

Blackjack Bot

Python, React, CSS

- Built bots that hit/stayed according to different Blackjack strategies
- Generated data from simulated games to 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 Spotify Web API to retrieve user information and allow easy access to saved songs in their account

Expense

React, CSS

- Web application to help users with budgeting
- 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 instantly 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)

AWARDS / HONORS

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