# Yaowen (Alex) Xu

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### **EDUCATION**

## University of California, Berkeley

Bachelor of Arts in Computer Science, Graduated in Dec. 2021.

**Relevant Coursework**: Structure and Interpretation of Computer Programs (CS 61A), Data Structures (CS 61B), Great Ideas in Computer Architecture (CS 61C), Discrete Mathematics and Probability Theory (CS 70), Efficient Algorithms and Intractable Problems (CS 170), User Interface Design and Development (CS 160), Software Engineering (CS 169), Introduction to Database Systems (CS 186), Computer Security (CS 161)

## **SKILLS**

• Advanced: HTML, CSS, JavaScript, Python, Java; React, jQuery, Bootstrap

• Intermediate: C/C++, SQL; RESTful API

### **EXPERIENCE**

**CS70 Course TA** *University of California, Berkeley* 

June. ~ Aug. 2019

• Reinforced classroom learning with additional discussion and specially prepared problems regarding discrete math and probability theory.

#### **PROJECTS**

Maze

April ~ June 2019

- Demo Link: <a href="https://github.com/alexxuyaowen/maze">https://github.com/alexxuyaowen/maze</a>.
- Lead two team members to develop the randomized maze game with Java, used the Weighted Quick Union algorithm to implement the core functions.
- Used A\* Search algo to implement the function of clicking on a valid target, the character can move to the target by the shortest path.
- Achieved the function of saving, loading, and replaying the game.
- Incorporated sound effects when the player performs a special ability such as teleportation or breaking a wall.

**Poker** *Jan.* ~ *Feb.* 2021

- Based on the Relative-Frequency Approach, the program can tell the users how likely they are about to win in Texas Hold'em through thousands of times of simulations of the current situation.
- Written in Python; created based on my personal interests in Poker.

Rotten Potatoes

June ~ July 2021

- A web app which simulates Rotten Tomatoes to display movies' info, using Ruby on Rails.
- Able to filter and sort the movies. Changes made are persistent via the use of cookies.
- Able to edit existing movies and add more movies. Changes made are persistent via database systems.

Hangperson June ~ July 2021

- A SaaS web app which simulates the word-guessing game, Hangman, using Sinatra framework.
- The chosen word is extracted from http://randomword.saasbook.info/RandomWord.
- Six wrong guesses are allowed; duplicate or invalid guesses won't count.