

Richard Tang

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Education

University of California, San Diego

Sep 2016 - June 2020

- Bachelor of Science discipline in **Computer Science and Machine Learning**
- **Relevant Coursework:** Data structures, Algorithm Design, Discrete Math, Computational Theory, Graph Theory, Software Tools and Technique, Object-oriented Programming, Dynamic Programming

Projects

E-commerce

React.js, React Redux, Firebase, GraphQL, Apollo, StripeAPI

- Built an reactive, performant and large scale E-commerce application that stores collections of items in Redux store and processes client payment using Stripe.
- Application utilizes Firebase for user authentication and speed up and optimize shopping processes.
- Tested application using Jest, Enzyme and snapshot testing

Six Degrees of Kevin Bacon

C++, meson build

- Designed and implemented graph representation of actors relationships using IMdb data set that consists 1.5 million different movie information.
- Implemented Dijkstra's, BFS, DFS, Kruskal's, and union-find algorithms to manipulate graphs.

Sudoku

Python, Pygame

- Implemented a Sudoku game with randomly generated solvable and valid board along with different difficulties.
- Utilized key events to allow the player to select boxes and input values using keyboard. Player has option to give up and program will manually solve the board using backtracking
- Program has ability to tell a move's validity and generate new board when player decides to play new game

Autocompletion

C++, meson build

- Implemented string autocompleter similar to options a browser provides when typing in search bar
- The program allows user interaction and when given a dictionary file with words and frequencies, the program will feedback the most frequent to least frequent word based on the prefix and number of words to return.
- Program also has the ability to predict a word when encountering underscore symbols.

Work Experience

HongHuo Inc.

June 2019 - September 2019

Software Engineer, Web

San Diego, CA

- Developed website for company's restaurant for convenient ordering using HTML, CSS and Javascript
- Tune and polish website to optimize customer experience

Hack for LA

September 2020 - Present

Volunteer Front End React Developer

Remote

- Contributed on project Food Oasis to help individuals locate food pantries and meals around their area.
- Currently working toward creating functionality for referral services that allows the user to annotate and update listings through a peer verification system.