Brian Ventura

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EDUCATION

University of California, Irvine | *B.S. in Computer Science* Expected June 2022

- GPA: 3.4/4.0
- Relevant Coursework: Discrete Mathematics, Linear Algebra, Data Structures, Design and Analysis of Algorithms, Information Retrieval, Machine Learning, Artificial Intelligence

SKILLS

- Coding Languages (Proficient): Python, Javascript
- Coding Languages (Familiar): Java, C++, React.js
- Software and Tools: IDLE, VSCode, PyCharm, Eclipse, Jupyter Notebook, Firebase, MySQL

PROJECTS

Checkers AI | *Python Application* | Introduction to Artificial Intelligence

- Created a proficient AI to play checkers against other AIs of different skill levels.
- Modeled the AI to use Monte Carlo Tree Searching, which applied understanding of traversal methods, backpropagation with node scoring, and optimal game simulations.
- Achieved win-rates of 85% and 60% after running checker matches against "Average" AIs and "Good" AIs, respectively

Simple Covid-19 Simulator | *JavaScript (React) Web Application* | https://github.com/brianv212/covid-sim

- Created a website to inform users of the dangers of disease spread, keeping the design and presentation of the concept as simple to appeal to a wide range of audiences
- Collaborated with two teammates to produce a working React website over the course of one weekend, assigning tasks and keeping to a schedule to help manage our skills and time

Algorithm Racing | *Javascript (React) Web Application* | https://github.com/brianv212/algorithm_racing

- Designed a website to visualize efficiency of algorithms by comparing them in races using React.js
- Implemented four different sorting algorithms as well as two additional data structures for user interaction, built using React.js

UCI Web Scraping Application | *Python Application* | Information Retrieval

- Applied understanding of data structures and information retrieval techniques to efficiently scrape web data from UCI-related domains.
- Modeled the program after modern day search engines with success, using Python for the back-end and Flask for the front-end.
- Built an efficient web browser with search speeds faster than 300ms.

WORK HISTORY

7 Leaves Cafe July 2019 - Present (Seasonal)

Team Member | San Jose, CA

- Demonstrated cooperation and communication skills with coworkers, which contributed to positive team environments
- Efficiently took orders, made drinks, and served over 200 customers each shift