MATT GOTTLIEB

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EDUCATION

University of California, Santa Barbara

Class of 2020

- Major: Computer Science, B.S.
- Relevant Courses: Advanced App Programming (CS56), Mobile Application Development (CS184), Introduction to Computational Science (CS111), Data Structures and Algorithms I & II (CS130A/CS130B), Computer Communication Networks (CS176A), Human-Computer Interaction (CS185), Operating Systems (CS170), Fundamentals of Database Systems (CS174A), Artificial Intelligence & Machine Learning (CS165A/B)

EXPERIENCE

Tragedy of Commons Multiplayer Simulation Game   Santa Barbara, CA

Web Application   Jan 2020 - Apr 2020

- Implemented a multiplayer simulation game which is used in CHEM 123 classes for Professor de Vries at UC Santa Barbara as an interactive learning tool for his students. This application uses Node.js for the backend with the assistance of the Express.js framework to handle routing and middleware, mySQL for the database, and Embedded Javascript for the Front-end.

Ocean Recoveries Lab   Santa Barbara, CA

Python Scripts   Jan 2020 - Mar 2020

- Created Python scripts to assist researchers at the Ocean Recoveries Lab at UC Santa Barbara. These scripts are used with Metashape to automate the process of converting datasets of photos researchers have taken of coral into accurately scaled 3d models in order to quantifiably measure the growth or deterioration of coral reefs.

Gomoku AI   Santa Barbara, CA

Artificial Intelligence   Jun 2020 - Jun 2020

- Developed an AI in Python to play Gomoku. This AI uses the Minimax algorithm and a custom point evaluation system to determine the best move. It incorporates Alpha-Beta Pruning and an optimized method of searching in order to reduce computation time.

Fitness Equipment Scraper   Oak Park, CA

Web Application   Jul 2020 - Jul 2020

- Constructed a Python Flask web application hosted on Heroku that utilizes cron jobs to scrape equipment information with Beautiful Soup from popular fitness websites and store them in a Postgres database. Due to COVID-19, fitness equipment is hard to find, so this application displays all available fitness equipment in one place to save people time in their search.

Author Predictor   Santa Barbara, CA

Machine Learning   May 2020 - May 2020

- Assembled a Machine learning Multinomial Naive Bayes Multiclass classification model with a bag-of-words text representation to predict the author of an anonymous article. Used lemmetization, bigrams, and trigrams as methods to improve accuracy.

LocNes   Santa Barbara, CA

Website   Mar 2019 - Oct 2019

- Designed and developed the website and e-commerce platform for a startup called LocNes. This website was written in HTML, CSS, and JavaScript and incorporates the Shopify API.

Walter Reed National Military Medical Center   Bethesda, MD

Hardware   Jul 2018 - Aug 2018

- Interned at Walter Reed's state-of-the-art 3D Printing facility designing and printing devices for medical applications.

First-Person-View Quadcopter   Oak Park, CA

Hardware & Firmware   Oct 2018 - Dec 2018

- Built a quadcopter that is controlled with a first-person-view real time video feed to better understand how all the hardware components such as the electronic speed controllers, PDB, radio and video receivers, brushless DC motors, and gyroscope interact with firmware placed on the flight controller.