

# 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/CS165B)

## EXPERIENCE

### Tragedy of Commons Multiplayer Simulation Game

Santa Barbara, CA

Web Application

Jan 2020 - Apr 2020

- Implemented a multiplayer simulation game for Professor de Vries which is used in his CHEM 123 classes 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.

### LocNes

Santa Barbara, CA

Website

Mar 2019 - Oct 2019

- Designed and developed the website and ecommerce 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

Santa Barbara, CA

Hardware

Oct 2018 - Nov 2018

- After building my own custom 3D Printer I wanted to explore this industry further. Gained hands on experience interning at Walter Reed's state-of-the-art 3D Printing facility, which focuses on creating devices for medical applications such as prosthetics.
- Produced multiple medical devices, which are still currently being used to assist Doctors there.

### Fitness Equipment Scraper

Santa Barbara, 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 BeautifulSoup 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.

### First-Person-View Quadcopter

Santa Barbara, 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.