TROY LEE

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EDUCATION

University of California, Santa Barbara

Santa Barbara, CA

Bachelor of Science in Computer Engineering

Sep. 2017 - Jun. 2021

Relevant Coursework: Data Structures & Algorithms, Artificial Intelligence/Machine

Learning, Operating Systems, Websockets/Networking, Database Systems

EXPERIENCE

Game Developer & Youtuber

Jun. 2020 - Present

Godot Engine

- Developed and published independent indie games including Astro (top down space shooter), Simple Board (strategy board game), Lone (adventure 2d-platformer) written in GDScript [Website]
- Constructed 5+ games from scratch in game-jams (hackathon-like format) under theme and time restrictions
- Designed 2D art in Aseprite, audio/sound effects in Audacity, and researched game balancing techniques
- Edited YouTube tutorials (50k+ views) using OBS for beginner and intermediate developers [YouTube Channel]

PROJECTS

QAD Virtual Assistant | *NLP, ML, React, Docker, Google Compute Engine*

- Intelligent AI chat-bot for navigation of the QAD, a cloud ERP software company, application
- Test-driven approach within a 5-person team, using git and Agile principles, to reduce query times by 67%
- Worked in a "full-stack" role using the Rasa framework and Duckling library for NLP/ML back-end and the React framework for front-end; deployed components as docker containers inside a Google Compute Engine VM

Fantasy Basketball App | Python, Flask, SQL

- Personal application for scraping fantasy basketball league stats using Yahoo's Fantasy Sports API
- Tracked 300+ NBA player stats (fg%, ft%, pts, ast, reb, etc.) and tabulated data with filtering options for each stat
- Used Python for API data extraction, a sglite3 database, and Flask framework to display a jQuery table

Gomoku AI | C++, AI

- Artificially intelligent Gomoku player programmed in C++
- Implemented mini-maxing algorithm with alpha-beta pruning and custom heuristic function
- Successfully bested a baseline test program with an 80% win rate over 100+ games

Hoverquad | *Arduino, Circuit Design, Soldering*

- Bluetooth-controlled quadcopter with custom design and configuration
- Used Adafruit feather for bluetooth, MPU-6050 (I2C) for accel/gyro data, achieved speeds up to 50mph
- Designed 3 iterations of prototype visuals and circuit schematics using Fritzing over course of project

LEADERSHIP

Zeta Phi Rho Fraternity

Sep. 2019 - Jun. 2021

Fundraising & Philanthropy Chair

- Communicated with 10+ global and local businesses to organize collaborative fundraising/philanthropy events
- Raised over \$1000 within a week of hosting a Stussy Brand Clothing Sale and scheduled 10+ events each quarter

Web Development Officer

Sep. 2017 - Jun. 2019

UCSB IEEE

- Assisted in implementing quality-of-life (QoL) improvements to UCSB IEEE website through HTML/CSS
- Constructed 3 mock-ups for discussion with primary UI programmer about UX consideration
- Refactored HTML changing button layouts, navigation bar improving average user navigation speed by 50%

TECHNICAL SKILLS & INTERESTS

Languages: Python, C++, JAVA, GDScript (Godot), SQL

Developer Tools: Git, Ubuntu, VS Code, Docker, Visual Studio **Interests**: Game Development, Video Editing, YouTube, Basketball