

Justin Lam
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Education:

Pursuing a Bachelor's Degree in Computer Engineering

University of Massachusetts - Amherst

2019 - Present

Graduation date: May 2023

Work Experience:

The WorcShop - Intern

Winter 2018 - Summer 2019

- Primary scheduling coordinator for various vocational events within the WorcShop makerspace primarily pertaining to Welding, Metal Fabrication, Blacksmithing, Machining, and Solidworks.
- Social Media Event marketer, integrating promotional announcements and notices across various Event-based platforms to ensure proper notification and outreach of class information to as many relevant people as possible.

Projects:

COVID Social Distancing Counter

- Created an electronic system measuring distance to nearest approaching customer, and provided instructions to approaching person to maintain social distancing.
- Built sensor in Arduino Uno Board and the Arduino IDE in C
- Displayed and summarized number of counter-approaches to user and listed ankajndsankdijnaskjdn

Drop Royale - Multiplayer Unity Game

- Co-developed multiplayer game using the Unity Engine and the C# programming language.
- Coded multiple classes to handle abstraction of objects such as "Player","GameBoard", and implemented logic to handle various game states and player collisions.
- Used Github as source control, creating local branches and handling merge conflicts.

EZBackup

- Worked in a group to create a manually-attachable backup camera designed for U-Hauls and tow-trucks. The camera connects to a Mobile Device through an app, with support for up to 3 different cameras to be placed around the vehicle rear exterior.
- Connected distance sensor, which creates an increasingly rapid sound as vehicle approaches wall or obstacle.
- Utilizes Wifi-Direct protocols to maintain reliably fast connections with low latency.
- Developed with the Raspberry Pi Pico W (with an RP2040) as a microcontroller, utilizing a custom PCB for the microcontroller system.

Relevant Coursework:

- Analytical Tools for Computer Engineering
- Advanced Programming
- Digital & Computer Systems
- Systems Programming
- Circuits and Electronics I
- Comp. Tools for Computer Engineering

Technical Skills:

- **Languages** : Python , C# , MATLAB , ARMv8 , C
- **Software**: Pycharm, Autodesk Inventor
- **Operating Systems**: MacOS, Windows, Linux, Unix
- **Additional Skills**: Mechanical Design, 3D CAD Modeling, Bash, GIT

Achievements

- 2x Doherty Memorial Chess Champion