Kyle Verwey

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Profile

Self-taught software developer looking to utilize my skills inside the software space. Highly motivated team player who excels in solving problems under pressure and able to articulate programming language in a less technical approach so the entire team can understand. Key skills, C, C++, Python

Projects

LED/MAGNETIC REED SWITCH CHESS BOARD-

In this project I managed to intergrate my software skills with my hardware knowledge to create what is by far my most complex project Ive built and am currently working on. In this project I wired 4 8X32 led matrix together to an esp32 mirco-controller and have a second esp32 connecting 64 magnetic reed switches to read when a magnetic force is in range or not. I have a magnet under each chess piece to get a reading and so I can monitor each piece . In this project a major hurdler I had to overcome was at first I tried to use an ardinuo for this project but quickly found out memory limits and trying to control 1024 leds and 64 magnetic reeds with just one ardino wasnt gonna work I ran out of useable memory after just half the leds. Thats when I switched to the esp32's where I had to learn how to read and write to a whole new board. Then I had to reorginze the leds because trying to program 1024 leds that are in serpentine patterns would just not cut it. So I created a function that reorginzed the matrix's so that I could call any LED on the grid with just an X, and Y cordnate. End goal is to have chess board tell you where a piece can move and play physical chess with "gaurd rails".

Game bot- https://github.com/starzzots/MoreBots

In this project I create a pixel finding tool for a game I play where you are able to track any object on your screen based off its RGB Value you plug in and have it return to you 4 points that then randomizes the cordinates of the object and gives a randomize location within the 4 points that then gets sent to a Class that then moves the mouse to that given location "square" and preforms an action rightclick, leftclick, drag click, ect. Key hurdle I had to overcome in this project was understand screen locations and optimizing my RGB finder so that I didnt have to scan the entire screen every iteration to find a color where I had an idea of where it would be located on the screen to help speed up the process of finding the object

EDUCATION

GOOGLE ANALYTICS CERTIFICATE|JANUARY 2023|

self-taught |

"https://www.coursera.org/account/accomplishments/professional-cert/32ZY75UEWW6T"