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Period 5

Journal 18

I developed a new method of lattice data collection that is significantly more efficient. It takes about 10 seconds to classify ~80 lattice points. The algorithm is to run the current model on an image and show the user all the lattice points that it believes are positive examples. Then, the user can click on intersections in the image to toggle each point to either be positive or negative. The software just toggle the closest lattice point to the mouse pointer when the user clicks. It is much more accurate and also much more efficient. This will help me train my CNN on more examples to make it even more accurate than it already is.

For the GUI, I focused more on functionality this week, but Dr. Gabor has informed me that I need to focus on making a list of things that I want to accomplish with the GUI. I was able to implement images and live video into the GUI. However, I need to shift focus to building a framework rather than focus on functionality.

Some things that Dr. Gabor and I talked about for the GUI:

* Figure out a way to display the FEN string and the PGN moves. This will most likely be a text label on the side of the GUI, but it might also have a more graphical representation (a display like those on lichess or chess.com)
* When using the live video input, the program should be able to save a single frame as an image or save the whole sequence as a video
* When processing a video or image, the user should be able to override the prediction for the first frame to ensure that our algorithm can properly use chess logic to determine the location of the pieces in the subsequent frames
* One possibility that Dr. Gabor suggested was to somehow save the corrections for a video, so the user doesn’t have to correct it again when they use it again