Kevin Chung

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Period 5

Journal 23

This week, Kevin Fu and I really focused on piece classification. He added code to the piece labeling UI to start the labeling with the model’s predictions rather than just an empty board. This significantly decreased the time it takes to label a single image, since we are simply correcting the model’s predictions rather than putting every piece in individually.

With regards to the UI, I added another graphic to show the user which lines the algorithm is checking, since our algorithm filters out lines that are unlikely to make up the inner 6x6 square. This graphic is shown in the image below, and the blue lines are vertical lines and the green are horizontal lines. Our algorithm splits the lines up like this to increase efficiency in checking combinations of four lines. Additionally, the UI now switches back to the raw image when loading in a new input. Before, the user had to repeatedly press the back button until they reached the raw image.

As for the backend, I discussed with Kevin Fu the possibility of rewriting the board detection code so it is compatible with CUDA. However, this seemed unfeasible given the time we have, and does not have a large enough payoff for the time we would have to invest. Alternatively, we are planning on implementing point tracking with OpenCV, so we don’t have to recalculate the board every frame. While there are limitations with this approach, as it makes the assumption the board is generally in the same location, it would be much, much faster and thus we are going with this approach.

