

Milestone 2

What we have done so far

- Fix some missing things in the previous milestone
 - Functionalities: checkmates, check pins, en-passant, castling
 - Pawn promotion: currently auto-promotes to queen.
- Implemented first Minimax strategy
- Created first evaluation function
 - Based on piece value and king safety
- Created two heuristics
 - Most valuable victim least valuable attacker
 - Killers moves first

Reflect: Did we achieve our goals?

- We are slightly behind our goal, we created a minmax function, researched and implemented a possible evaluation function, created 2 heuristic functions and fixed most of the game functionality. We are now at the point of testing our minmax agent out against random agents. But through doing this we are running into new errors in the source code functionality that we are currently debugging. Once we get this done we will be right on track to finalize our strategy and streamline our algorithm.
- We fix some functions left in the previous milestone, and test the functionality of the game board. After implementing the evaluation function and minimax strategy, some functions work partially and expose issues.

Replan: Given progress thus far, adjusting our goals:

- This week will be debugging week where we try to fix the functionality of the 4 Player chess game board. Some implemented functions in the board file need to be adjusted to resolve the bug.

Timeline:

Week 4

- Work on evaluation function
- Continue debugging error code
- Consider how to implement a transposition table
- Implement Killer Moves Heuristic into Minimax algo code

Week 5

- Get transposition table working
- Test models (random, no transposition basic eval, transposition updated eval function)
- Work on slideshow

Week 6

- Work on Final project report