

COSC276 Fall Term 2022 - PA3 - Gibran Erlangga

How to run the code

Go to *test_chess.py* and you will see two variables: *player1* and *player2*. You can set up the core algorithm to run each player with the following options: *RandomAI*, *HumanPlayer*, *MinimaxAI* or *AlphaBetaAI*. By default, *player1* is set to *MinimaxAI(3)* and *player2* is set to *RandomAI()*. Specifically for *MinimaxAI* and *AlphaBetaAI* object, you will need to specify the maximum depth as the only parameter to the object (only accepts positive integer). In essence, the larger the value, the more time needed for the algorithm to decide on the next move as it computes and compares more move options.

Minimax algorithm

To run the minimax algorithm, you can set the *player1* or *player2* to *MinimaxAI(max_depth)* with your desired *max_depth* value.

Alpha-beta pruning algorithm

To run the alpha-beta algorithm, you can set the *player1* or *player2* to *AlphaBetaAI(max_depth)* with your desired *max_depth* value.