

Minimax Chess Player With Alpha-beta Pruning



Chess is a 2 player game where players alternate moving pieces in order to try and capture the opposing player's king. Chess is played on a board that is broken into 64 squares arranged in 8 vertical columns and 8 horizontal rows. There are 32 pieces on the chessboard, 16 for each player. Each piece is one of 6 types, it can be a king, rook, bishop, queen, knight or a pawn. How a piece is able to move on the board depends on its type. This project will aim to create a minimax chess player that incorporates alpha beta pruning. Alpha beta pruning is used with the minimax algorithm to decrease the number of nodes in the game tree that are evaluated. There will be an interface created so that a human can play against the chess player. There will also be a random player that will make random legal moves and compete against the minimax chess player. This random player will be used in order to test the effectiveness of the minimax player. The minimax chess player should be able to beat both the human opponents and the random player.