

Title: OPTIMIZING MINIMAX'S SEARCH ALGORITHM IN CHESS WITH ALPHA-BETA PRUNING ALGORITHM

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ABSTRACT

The estimations of the board are figured by a couple of heuristics which are exceptional for each kind of redirection. In the chess diversion, there are at least 20 conceivable outcomes to make the principal move, the more the profundity your simulated intelligence use to foresee, the more hubs will be filtered exponentially. Hence it is $O(20^{\text{depth}})$ in Big O notation. To counter this issue, analysts incorporate the alpha-beta pruning to minimax to improve its tree seeking and to demonstrate that the proposed look tree advancement calculation for Minimax to be specific Alpha-Beta Pruning is effective for the simulated intelligence bot to use in chess than minimax calculation alone. The scientists at that point assembled information by playing three rounds of chess in 3 distinct processors where in each round, specialist plays ten moves with the depth of 4. With these sorts of experiments, the researchers are ready to presume that Alpha-Beta Pruning lessens preparing time and nodes that will be assessed in decision trees like minimax.

Keywords: Maximin, nodes, trees, minimax, alpha-beta pruning, the algorithm