Heuristic Analysis

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Objective

The project attempts to devise an AI agent for the game of Isolation. The agent relies on Minimax algorithm with iterative deepening and alpha beta pruning to return best moves for a player within a given time constraint. The agent tests the below 3 heuristics against a few other AI agents and will eventually select a heuristic function which provides the best win rate

Heuristic 1

Custom Score 1 : my\_moves – 2\* opponents’s moves

This function emphasizes aggressive play against the opponent by evaluating the margin of moves between 2 players. This is bases on the thumb rule that the player with more available moves generally wins

Heuristic 2

Heuristic 3

Comparative Performance

Conclusion