

Heuristic Analysis

1 - custom_score(game, player):

→ Evaluation function = number of moves of myself - number of moves of opponent

But this method sometimes predicts wrong so one solution is to make a model in order to get the perfect coefficient of this function.

2 - custom_score_2(game, player):

→ Evaluation function = number of moves of myself - 2.5*number of moves of opponent

This method will give a better prediction than the first one

3 - custom_score_3(game, player):

→ Evaluation function = $\text{float}((h - y)^2 + (w - x)^2)$

h → height of the board divided by 2

w → width of the board divided by 2

y → location of the player with respect to the height

x → location of the player with respect to the width

this method is better because it determine the location of the player with respect to the center of the board and calculate the sum of square of their difference.

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| 5 | | 5 | 6 | | 4 | 3 | | 7 | 3 | | 7 |
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| Win Rate: | | | | 58.6% | | | 70.0% | | | 62.9% | |
| | | | | | | | | | | 61.4% | |