

COMP3130 – Group Project in Computer Science

10×10 Othello Learning Agent

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1. Abstract

An agent to play the board game *Othello* is created, with the ability to learn through reinforcement. The minimax algorithm is used for game playing, and a static evaluation function for the leaf nodes is learnt by self play. The agent learns the insignificance of the number of stones, and the significance of stone positioning. This agent is played against itself, and against other developed agents, and it's performance is analysed.

2. Problem overview

3. Solution overview

4. Optimisations

5. Static evaluation function

6. Learning

7. Performance evaluation

8. Improvements
