

Artificial Intelligence and Machine Learning Fundamentals

Activity 3: Fixing the First and Second Moves of the AI to make it Invincible This section will discuss how an exhaustive search can be focused so that it can find moves that are more useful than others. We will be reducing the possible games by hardcoding the first and the second move:

1. Count the number of empty fields on the board and make a hardcoded move in case there are 9 or 7 empty fields. You can experiment with different hardcoded moves.
2. Occupying any corner, and then occupying the opposite corner, leads to no losses. If the opponent occupied the opposite corner, making a move in the middle results in no losses.
3. After fixing the first two steps, we only need to deal with 8 possibilities instead of 504. We also guided the AI into a state, where the hardcoded rules were enough to never lose a game.