Pawnscape Solution

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All games on a 4×4 board end in a draw if both sides play optimally. To prove this, I constructed an RL model which plays against itself and thus finds the optimal move for every position. After creating the larger MDP with over 5000 states, I then made white play optimally while black plays randomly, thus finding the set of all states attainable if white follows the strategy identified by my RL model. Turns out only 157 states were attainable by white under this play, with 4 of those states being draws. Similarly, for black, under random play by white, 257 states are attainable.