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Artificial Intelligence

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Mid Project Update Gomoku AI

My project does not come with data set, as it is in the form of a MDP in Omok.py. Look in jupyter notebook to run MDP and see results of AI algorithm.

* Setup core game components and object interactions.
* Programmed win requirements and terminal states.
* Created game assets, pieces, board, and rendering using pygame.
* Implemented minimax algorithm to enable enemy bot AI.
* Implemented alpha beta pruning to speed up algorithm.
* Fine-tuned state evaluation algorithm by repeated testing.
* Enabled support for two-player games, player vs AI, and AI vs AI game modes.
* Visualize reward distribution and win-rates with graphs using pyplot.