The Golem Go Program

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Abstract

Golem is a simple go-playing program that seeks to play the move which gains the most territory. It uses local tactical search to identify vulnerable stones and protected liberties, and then uses this information to estimate the strength of each group of stones. Territory is computed using a relaxation procedure. It has a neural network trained to try to recognize professional go players' moves based on the pattern of the stones immediately surrounding each move. This neural network is used for move ordering and forward pruning in Golem's search. Golem plays at approximately the 13 *kyu* level. Its simple structure indicates a framework for future go programs.

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