

ANDREW MOSEMAN, JARED KNOTTS, MOHAMMED BALASSI, Dept of Computer Science, Mathematics and Engineering, Shepherd University, Shepherdstown, WV, 25443, and WEIDONG LIAO (Faculty Advisor), Dept of Computer Science, Mathematics and Engineering, Shepherd University, Shepherdstown, WV, 25443.  
Developing a Reinforcement Learning based Chess Engine.

Traditionally, chess engines use handcrafted evaluation functions based on human strategy. Recently, machine learning has been used as an alternative to direct position scoring. However, this typically involves training a model on human matches. Reinforcement learning has been shown to be a viable machine learning approach that, when combined with self play, can train a neural network for chess position evaluation without the need for human domain knowledge. This paper discusses our implementation of a reinforcement learning based chess engine, trained using self play.