

Project Peer Review

1. AI Super Tic-Tac-Toe
 - a. Problem Statement
 - i. Train an AI to play a zero-sum 9 board tic-tac-toe game against random, human, and other AI opponents.
 - b. Strategies Used
 - i. Minimax & Expectimax
 - ii. Monte-Carlo Tree Search
 - c. Conclusions
 - i. MCTS won handily, just as it did in Alpha Go. Minimax couldn't go deep enough to work well. Expectimax assumption of random opponent is a poor expectation.
2. NHL Hockey Player Performance Prediction
 - a. Problem Statement
 - i. Predict scores of 1:4 NHL hockey performance based on AHL data.
 - b. Strategies Used
 - i. Naive-Bayes
 - ii. Softmax
 - iii. SVM
 - iv. Neural Network (planned to implement)
 - c. Conclusions
 - i. Good at predicting 4 (poor performance). Bad at predicting 1 (top performance). They will try modifying cost function to penalize missing higher performers. Very few training points for top performers makes training tough.
3. Ethical Life Pro Tips
 - a. Problem Statement
 - i. Evaluate reddit.com Life Pro Tips (LPT) as ethical or unethical. Data tagged by posts submission to LPT or 'unethical LPT' subreddits.
 - b. Strategies Used
 - i. Hidden Markov Model
 - ii. Naive Bayes
 - iii. Ensemble
 - c. Conclusions
 - i. Good performance.
 - ii. Some interesting results such as: "Take drugs for depression." categorized as good. I think it could go either way, good for prescription drugs and possibly bad for illicit drugs.