## Title: Heuristic Learning Machine for playing card game GOPS.

## A short overview of the game:

GOPS or Game of Pure Strategy is a card game played by two or more players. In GOPS one of the suits becomes the prize which players will bid over while the remaining suits are given to the players. If there are two players, the extra suit is discarded while if there are more than three players more decks are used. The suit that is the prize cards gets shuffled with one card face up that players bid on. Once the bids are made the cards are revealed and the highest ranking card wins the prize and ends that round. After thirteen rounds the game ends and the player whose sum of prizes won is higher wins the game.

## Infrastructure:

The project will consist of building the framework to build a deck of playing cards and shuffle the prize cards. A method to show the prize that is currently being bid on as well as displaying the bids after the bidding is finished. Scoring will be tracked and displayed to show which player won.

## **Initial Players:**

The initial players will be a random player at first then a heuristic player then a way for a person to play.

The ideal game is played with two players with the potential of more than two support for 3 or more players might be considered. Combinations of random players, heuristic players, and a human player will be planned.