Fall 2020

CS 5100 - Final Project Proposal

Artificial Intelligent Based Poker Game: Doudizhu

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Overview

Game Rules

High Level Design

In this project, there are three players in the game. Two of them are our computer Artificial Intelligence agents, and one is human. The two computer players will find the best algorithm to play the game. Based on what we have learned so far, we are proposing that we can use search algorithms to find the best way to play the game. Besides searching, reinforcement learning will also be used.

During the game, the game manager will first draw cards to each player. Then the players will choose to be the landlord and peasant. The landlord will draw extra 3 cards. After this, players will start playing. The first role who gets no card on hand will win the game.

Diagram

Description automatically generated

Future Work

1. Game rule implementation

We need to implement the whole game described above. And the AI algorithms should also be implemented.

1. UML

Draw the UML to show the relationship of our design