

Agent Description of Viking

Team name: Vikings

1. Introduction

Agent “Viking” (Team name: “Vikings”) will be participating for the first time in the 3rd International AIWolf Contest. The agent is specifically designed for a 15 player game but also plays 5 player games brightly. I, Mohiuddeen Khan, has developed this agent and I am currently pursuing my bachelor of technology in computer engineering at the Aligarh Muslim University, India.

2. Programming and resources

The agent is developed following the help of the youtube tutorial: <https://bit.ly/2SdvdF4>

The code for Viking can be found at: <https://github.com/mohikhan/Viking-AI-Wolf>

The agent is built in python with Viking.py as the script file and a separate file for every role.

3. Strategy

The agent follows different strategies for different roles. The strategies are made considering the unique role of each agent in the game.

The different strategies for different roles are as follows:-

3.1 WEREWOLF

The werewolf has two choices in selecting the strategy for each game. The strategy is randomly chosen and is followed for that whole game. In the first strategy, the werewolf pretends to be a seer and divines the most hated agent every day at a specific talk number(4th talk in our game). It tries to eliminate the most hated agent calculated from the

talks. For the second strategy, the werewolf behaves normally and votes for the most hated agent calculated from the talk patterns.

3.2 BODYGUARD

The bodyguard tries to identify the seer and medium in the game using talk patterns to guard them. The bodyguard also calculates the vulnerability scores of the agents who are most likely to be attacked by wolves and who are most friendly to him. Then he guards the agent with the maximum vulnerability score. The bodyguard votes for the most hated agent calculated using hostile talk patterns.

3.3 VILLAGER

The villager follows basic strategies by identifying the most hated agent using talk patterns and votes for the most hated agent.

3.4 POSSESSED

Just like the werewolf, the possessed has two choices in selecting a strategy. The first strategy is the same as the werewolf but in the second strategy, the possessed will try to return positive sentences in the talk phase to make the most hated agent consider him a friendly agent. However, at the end of the day the possessed will vote for the most hated agent identified from the talk patterns.

3.5 SEER

The seer tries to eliminate any other agent who identifies himself as a seer using talk patterns. The seer divines the most hated agent everyday and reduces the hate score if the result of divination comes out as a human. If the result of divination comes out as a werewolf then the hate score is increased for that agent. The seer comes out as a seer every day in the starting and normally increases the hate score of the agents using hostile talk patterns.

3.6 MEDIUM

The medium follows basic strategies to vote for other agents and tries to find out the agent who acts as a medium using talk patterns and votes for them. The agent comes out as a medium on the first day and first sentence of the game to gain the confidence of the villagers. The agent is not programmed complex because the medium identifies the agent after its death which is not of great use as the agent has already died.
