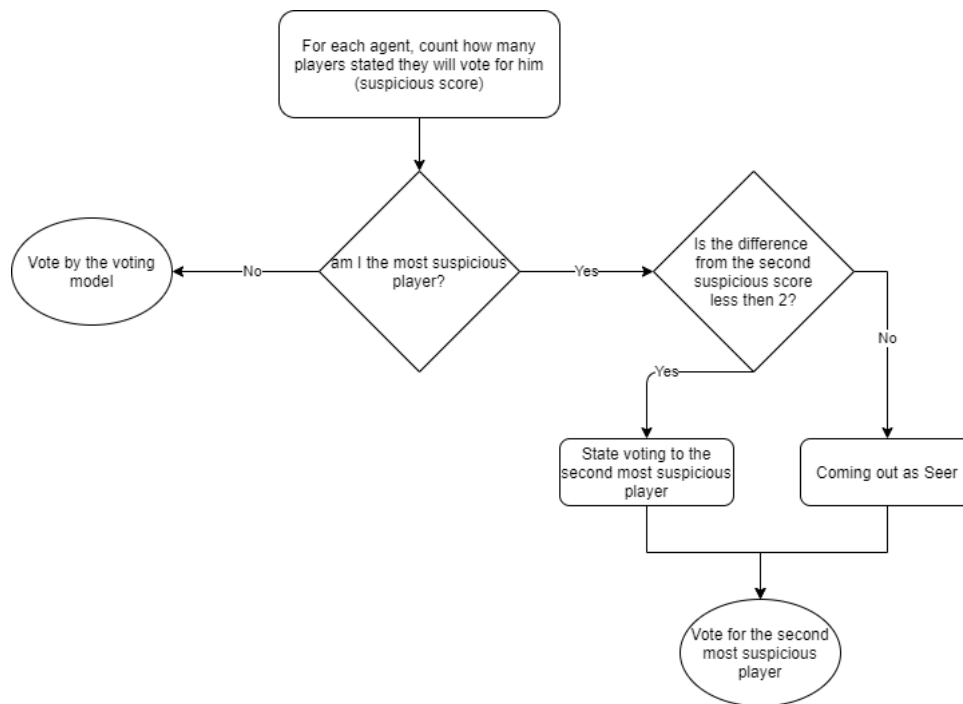


Wiski agent for AIWolf Competition

1. Strategy Description

Wiski agent consists of decision making strategy and ML based voting model. Wiski plays with the same strategy regardless the number of players.

All roles have the same basic strategy. In addition, Seer and Medium use their abilities and share the results with the other players. The basic strategy shown in the figure below:



- **Seer** divines the player with the highest probability of being werewolf and immediately announces the result.
- **Medium** immediately announces the result of identification.
- **Bodyguard** guards the player with the highest probability of being seer.
- **Werewolf** attack the player with the highest probability of being seer. Werewolf plays as 'lonely wolf'. That is, he whispers to whom he intends to vote and ignores the whispers of the other players.

2. Voting model

Wiski Voting model is based LSTM network. Current version embedding only 'Vote', 'ESTIMATE', 'COMINGOUT' and 'DIVINE' sentences. The output of the model is the probability of each pair ($agent_i, role$) \rightarrow agent i have the role $role$.

In addition, Wiski count the number of wins for each player. Finally to get the most valuable player to vote for (by role r), the model normalizes the wins rate and the probabilities of pairs ($agent, r$), and calculate the weighted average of them:

$$vote(r) = \operatorname{argmax}_i (aWinRate_i + (1 - a)(agent_i, r))$$

Current version use $a=0.3$.