

Team “takeda” Agent Description

2nd International AIWolf Competition

Our main algorithm hasn't changed much since the first competition. See the following link.
<http://aiwolf.org/control-panel/wp-content/uploads/2019/08/takeda.pdf>

In this document we will describe the details and changes to the algorithm described in the link above.

- We have modified the algorithm to reflect the change in the talk rules from contemporaneous to sequential. Specifically, we changed the algorithm to estimate the role of others by using the information of the talks before you.
- In 5-player game as a villager, it votes for the agent for whom more than 70% of the alive agents seems to vote. If no one fits the condition, it votes for the agent who is most likely to be a werewolf.
- In 5-player game, the voting action on the first day of possessed is to vote for the player with the highest value of "werewolf probability when you were really a Seer" minus “the actual werewolf probability”.
- For any role, if more than half of the alive player seems to vote our agent, it repeats its statement that it will vote for the player it wants to vote for.
- In 5-player game as a werewolf or a villager, if more than half of the alive player seems to vote the agent it wants to vote for, it stops making sentence to vote for the agent and just skip the turn.
- In 15-player game as werewolf, it attacks the agent with the highest value of $(\text{non-possessed prob.}) + 0.2 \times (\text{seer prob.}) + 0.1 \times (\text{medium or bodyguard prob.}) + 3 \times (\text{win rate})$.