

Results from 1 000 000 games using trained agents:

Simple agent:

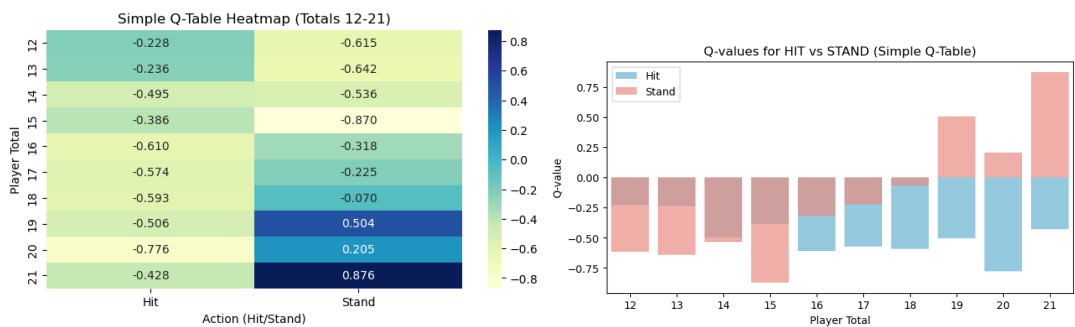
```
Picked up _JAVA_OPTIONS: -Djava.net.preferIPv4Stack=true
QTable loaded from qtable1.csv
Total games: 1000000
Wins: 415953 (41,60%)
Losses: 490009 (49,00%)
Ties: 94038 (9,40%)
Average player total when standing: 18,47
```

Advanced agent:

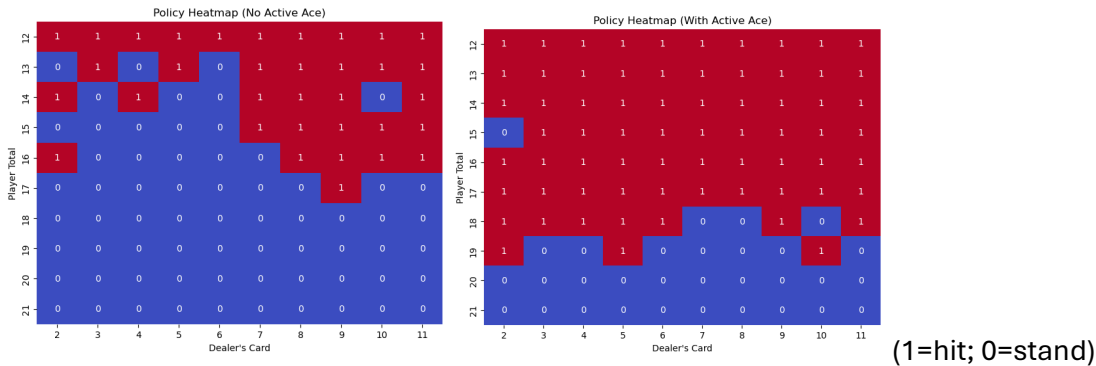
```
Picked up _JAVA_OPTIONS: -Djava.net.preferIPv4Stack=true
Enhanced QTable loaded from qtable2.csv
Total games: 1000000
Wins: 426554 (42,66%)
Losses: 482214 (48,22%)
Ties: 91232 (9,12%)
Average player total when standing: 18,06
```

Adding more data about the world improves the winning accuracy of the agent. Also, I observed the complex agent stands at a lower average.

Learned Q-table Simple agent:

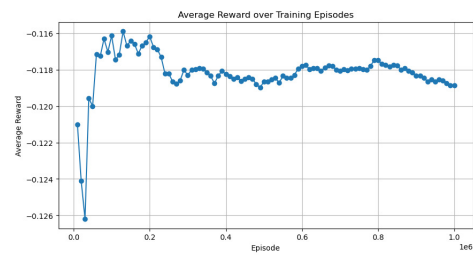


Complex agent:

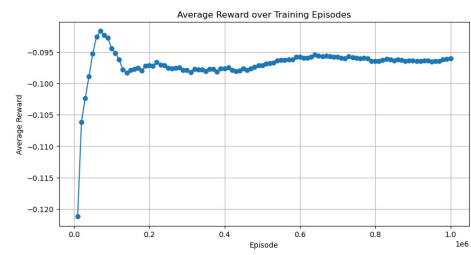


Average reward training:

Simple agent:



Complex agent:



I also asked Chat to create a code so I can play Blackjack against my agents. It was a lot of fun!