

AI Lab 2

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December 4, 2019

Task 1 Path Planning

1.1 a) Unified Search Algorithms

In this task we were supposed to implement three different types of search algorithms.

1. Random Agent
2. Breadth First Agent
3. Depth First Agent

The random agent works by simply adding a random weight to the node between 1 and 10

1.2 a) Informed Search Algorithms

1.3 b) USA vs ISA on map with obstacle

1.4 b) A* with heuristic

1.5 What I learned in Task 1

Task 2 Poker Bidding

2.1 a) Random Agent

| | |
|---------------|---------|
| Random Search | |
| stack | 306.50 |
| nNodes | 9102.80 |
| depth | 13.24 |
| nHands | 7.22 |
| opponentStack | 293.50 |

2.2 b) Breadth First Search Agent

| | |
|----------------------|-----------|
| Breadth First Search | |
| stack | 400.30 |
| nNodes | 135871.28 |
| depth | 10.36 |
| nHands | 2.30 |
| opponentStack | 199.70 |

2.3 c) Greedy Agent

| | |
|---------------|---------|
| Greedy Search | |
| stack | 402.10 |
| nNodes | 4209.28 |
| depth | 10.64 |
| nHands | 2.10 |
| opponentStack | 197.90 |

2.4 What I learned in Task 2