Homework #3: IDA*

Submit Assignment

程序代写代做 CS编程辅导

Due Apr 16 by 11:59pm

Available after Apr 9 at 12a

Points 100

Submitting a file upload

HW #2

16, 2018 at 11:59pm

For this assignment, undergraduates may work in teams with up to one other student, while graduate students must work individually. You can discuss the assignment with other students in thinking about how to solve these problems, but all pogramming and other portions of the assignment must be entirely your own work. You may not show your code to other students. If you are working with another student, you need to designate this by forming a group in Canvas.

This assignment should be tunes signment Project Exam Help

Task:

In this assignment you will implement by for the Oding Sile of Land Manhattan Distance for a heuristic.

Algorithm: QQ: 749389476

Implement the IDA* algorithm. The algorithm should take the environment, start and goal states, as well as a heuristic function. While the heuristic function can be part of the state, in the next assignment you will need to have heuristics that are not part of the state, so you may want to consider a separate heuristic function. (In C++ this could be implemented by a function pointer, a template parameter, or a pure virtual class.)

IDA* should return the path found.

Testing:

Test instances for IDA* will be provided shortly. Additionally, you should compare the speed of your IDA* implementation to DFID.

What to turn in:

Your submission should include the code for IDA* and a readme that contains the output of the test instances. Graduate students should also include a formal writeup that provides the experimental results in tables and explains the algorithms, domains, as well as the final results.

Test Instances:

There are 20 test instances in the transcript below. Your program & Course Chat last instance takes some time. New 程序代写代做 CS编程辅 3 1 2 6 4 5 7 8 0 9 10 11 12 13 14 Starting IDA (MD): Goal found at cost 4; 4 to 0.00s elapsed Left Left Up Up 3 4 1 6 0 2 7 8 5 WeChat: cstutorcs 9 10 11 12 13 14 Starting IDA (MD): Goal found at cost 8; 8 total expansion ment Project Exam Help Send 0.00s elapsed Up Right Down Down Left Left Up Up Email: tutorcs@163.com 6 8 2 9 7 5 10 13 11 12 14 0 QQ: 749389476 Starting IDA (MD): Bound 12 complete; 7 total expansions (7 new) Goal found at cost 14; 22 the type signstance of the state of the stat 0.00s elapsed Left Up Left Up Right Up Up Right Down Down Left Left Up Up 6 4 8 9 7 2 10 13 5 12 14 11 Starting IDA (MD): Bound 14 complete; 3 total expansions (3 new) Bound 16 complete; 18 total expansions (15 new) Bound 18 complete; 64 total expansions (46 new) Goal found at cost 20; 169 total expansions 0.00s elapsed Right Down Right Down Down Down Left Up Left Up Right Up Up Right Down Down Left Left Up Up 4 0 8 9 7 2 10 13 5 12 14 11

```
Course Chat
Starting IDA (MD):
Bound 16 complete; 7 total expansions (7 new)
Bound 18 complete; 44 total expansions (37 new)
Goal found at cost 20; 124 total expansions
                                                                                                                                                                                                 New
w.wws elapsed
Right Down Down Down Left U程标序以后代的 CS编程朝
9 8 1
7 4 2
10 13 5
12 14 11
Starting IDA (MD):
Bound 20 complete; 17 total
Bound 22 complete; 139 tota
Goal found at cost 24; 408
0.00s elapsed
Down Down Left Left Up Up Right Right Down Down Down Down Left
Up Up
                                                           WeChat: cstutorcs
6 3 1
9 0 8
7 4 2
10 13 5
                                                          Assignment Project Exam Help
12 14 11
                                                                                                                                                                                                                          Send
Starting IDA (MD):
Bound 18 complete; 9 total Expansions 19 news torcs @ 163.com
Bound 22 complete; 313 total expansions (252 new)
Goal found at cost 24; 475 total expansions
0.00s elapsed Right Down Left Left Up Up Right Down Down Down Down Down Left Up Left Up Right Down Left Left Up Right Right Down Left Left Up Right R
t Up Up
0 6 1
                                                         https://tutorcs.com
9 3 8
7 4 2
10 13 5
12 14 11
Starting IDA (MD):
Bound 18 complete; 3 total expansions (3 new)
Bound 20 complete; 26 total expansions (23 new)
Bound 22 complete; 139 total expansions (113 new)
Bound 24 complete; 602 total expansions (463 new)
Goal found at cost 26; 1155 total expansions
0.00s elapsed
Right Down Right Down Left Left Up Up Right Right Down Down Down Left Up Left Up Right Do
wn Left Left Up Up
6 1 0
9 3 8
10 13 5
12 14 11
Starting IDA (MD):
Bound 16 complete; 1 total expansions (1 new)
```

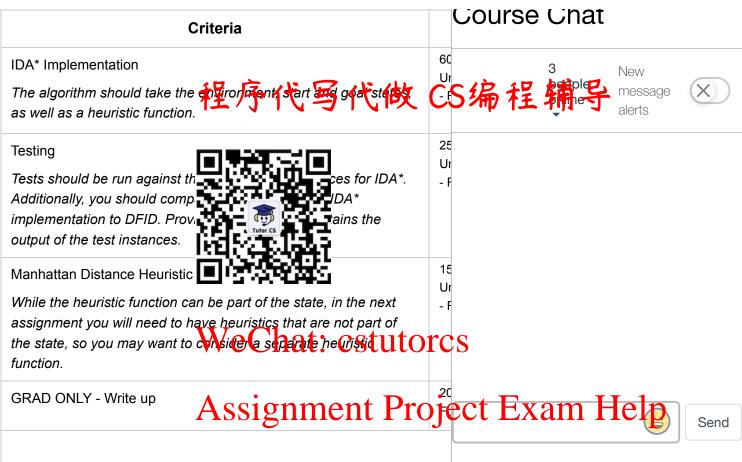








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