Assignment 3 Report -- Heuristic Search

CSE 415: Introduction to Artificial Intelligence, Autumn 2019

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1. Results with Heuristics for the Eight Puzzle

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Puzzle | Heuristic | Solved? | Soln. Edge | Soln. Cost | Expanded | Max OPEN |
| A | None(UCS) | Y |  |  |  |  |
| A | Hamming | Y |  |  |  |  |
| A | Manhattan | Y |  |  |  |  |
| B | None(UCS) |  |  |  |  |  |
| B | Hamming |  |  |  |  |  |
| B | Manhattan |  |  |  |  |  |
| C | None(UCS) |  |  |  |  |  |
| C | Hamming |  |  |  |  |  |
| C | Manhattan |  |  |  |  |  |
| D | None(UCS) |  |  |  |  |  |
| D | Hamming |  |  |  |  |  |
| D | Manhattan |  |  |  |  |  |

Puzzle A: [3,0,1,6,4,2,7,8,5]

Puzzle B: [3,1,2,6,8,7,5,4,0]

Puzzle C: [4,5,0,1,2,8,3,7,6]

Puzzle D: [0,8,2,1,7,4,3,6,5]

2. (Optional) Evaluating My Custom Heuristics