

Artificial Intelligence

Uninformed Searching

Informed Searching

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|------------------------------------|--|
| (i) Search without information | (i) Search with information |
| (ii) No knowledge | (ii) Use knowledge to find steps to solution |
| (iii) Time consuming | (iii) Quick solution |
| (iv) More Complexity (Time, space) | (iv) Less Complexity |
| (v) DFS, BFS, etc | (v) A*, Heuristic DFS, Best First Search |
| (vi) Optimal soln guaranteed | (vi) Optimal soln not guaranteed |

* Best First Search (Informed, Heuristic)

- here we use greedy technique based on heuristic value.
- Time complexity may be worst, based on heuristic value.
- See video.

* A* algorithm (Informed Searching)

$$f(n) = g(n) + h(n)$$

actual cost from
start node to
 n

estimation cost
from n to goal node

→ It guarantees optimal solⁿ