

Comparison of Search Algorithms for the 8-Puzzle Problem

Algorithm	Time	Space	Optimal	Suitable for 8-Puzzle
BFS	High	High	Yes	Not Suitable
DFS	High	Low	No	Not Suitable
UCS	High	High	Yes	Partially Suitable
IDS	Medium	Low	Yes	Partially Suitable
A*	Low	High	Yes	Highly Suitable
Hill Climbing	Fast	Very Low	No	Not Suitable
Genetic	Variable	Medium	No	Limited Suitable
Greedy BestFirst Search	Very Fast	Low	No	Suitable