



Artificial Intelligence Programming

Heuristic Search

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Overview

- Heuristic Search - exploiting knowledge about the problem
- Heuristic Search Algorithms
 - “Best-first” search
 - Greedy Search
 - A* Search
 - Extensions to A*
- Constructing Heuristics

Informing Search

- Previous algorithms were able to find solutions, but were very inefficient.
 - Exponential number of nodes expanded.
- By taking advantage of knowledge about the problem structure, we can improve performance.
- Two caveats:
 - We have to get knowledge about the problem from somewhere.
 - This knowledge has to be correct.