

Search Algorithms

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Objectives

- ❑ Understand the mechanics of graph search.
- ❑ Implement best-first graph search efficiently.
- ❑ Model problems as search problems.
- ❑ Understand heuristics as a means to control search.
- ❑ Sensibly vary between optimality and relaxation.
- ❑ Construct domain-specific search algorithms.

Literature

- ❑ Edmund K. Burke, Graham Kendall.
Search Methodologies
2nd edition, Springer, 2014.
- ❑ Nils J. Nilsson.
Artificial Intelligence: A New Synthesis
Morgan Kaufmann, 1998.
- * Judea Pearl.
Heuristics
Addison-Wesley, 1984.
- ❑ Stuart Russel, Peter Norvig.
Artificial Intelligence: A Modern Approach
3rd edition, Prentice Hall, 2010.
- ❑ Stefan Edelkamp, Stefan Schrödl.
Heuristic Search: Theory and Applications
Elsevier, 2012.

The slides of this course closely follow the book *Heuristics* of Judea Pearl.