Get Me Out of Here: Determining Optimal Policies

1. Introduction
2. Fundamentals
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      4. In computer programming
         1. Optimal substructure
         2. Overlapping subproblems
   2. Wie funktioniert Dynamic Programming
   3. Welche Algorithmen verwendet Dynamic Programming?
      1. Top down approach
      2. Bottom up approach
   4. Lösungsstrategien für Dynamic Programming
      1. Memoization
      2. Bellman’s principle of optimality
         1. Bellman equation
3. Related Work
   1. Classic Types of Motion Planning, Short Introduction
      1. Sampling based Motion Planning
      2. Combinatorial Motion Planning
   2. Pathfinding in 2D Grid
      1. Breadth First
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      3. Comparison of Dynamic Programming
         1. Differences to other Algorithms
         2. Why is DP good for Motion Planning
4. Solution Approach
   1. Motivation
   2. Topic
   3. My task
   4. My implementation
5. Evaluation
   1. Correctness with A\*
   2. Laufzeit
   3. Hoffentlich mathematischer Beweis
6. Conclusion
   1. Dynamic programming different approach classic algorithms
   2. Great way for time improvements
   3. But space tradeoff
   4. Hard to master
   5. But when mastered really powerful way to think of problems and tasks