Reasoning and Planning Papers

I have compiled a list of papers, books, articles and other forms of resources for reasoning and planning in large language models.

Benchmark

1. Natural Plan: https://arxiv.org/pdf/2406.04520
2. Natural Plan - Code: https://github.com/google-deepmind/natural-plan
3. TravelPlanner - A Benchmark for Real-World Planning with Language Agents: https://arxiv.org/pdf/2402.01622
4. TravelPlanner - Code: https://osu-nlp-group.github.io/TravelPlanner/

Inference Compute

1. Scaling Inference compute with repeated sampling: https://arxiv.org/pdf/2407.21787

Reasoning/Planning

1. Large Language Model - Based Evolutionary Optimizer: Reasoning with Elitism: https://arxiv.org/pdf/2403.02054
2. Evolving Deeper LLM Thinking: https://arxiv.org/pdf/2501.09891
3. Training verifiers to solve math word problems: https://arxiv.org/pdf/2110.14168
4. Self-referential self-improvement via prompt evolution: https://arxiv.org/pdf/2309.16797
5. EvoPrompting: Language Models for Code-Level Neural Architecture Search: https://arxiv.org/pdf/2302.14838
6. Teaching Large Language Models to Self-Debug: https://openreview.net/pdf?id=KuPixIqPiq
7. Tree of Thoughts - Deliberate Problem Solving with Large Language Models: https://arxiv.org/pdf/2305.10601
8. ReEvo - Large Language Models as Hyper-Heuristics with Reflective Evolution: https://arxiv.org/pdf/2402.01145
9. Large Language Models Can Solve Real-World Planning Rigorously with Formal Verification Tools: https://arxiv.org/pdf/2404.11891
10. Large Language Models as Evolutionary Optimizers: https://arxiv.org/pdf/2310.19046

Nature of Human Intelligence

Book link: https://gwern.net/doc/iq/1967-guilford-thenatureofhumanintelligence.pdf