

6.034
Search
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September 9, 2020



AI Methods

☒ Problem solving

- ☐ *search, optimal search, games, constraint satisfaction*

☐ Inference

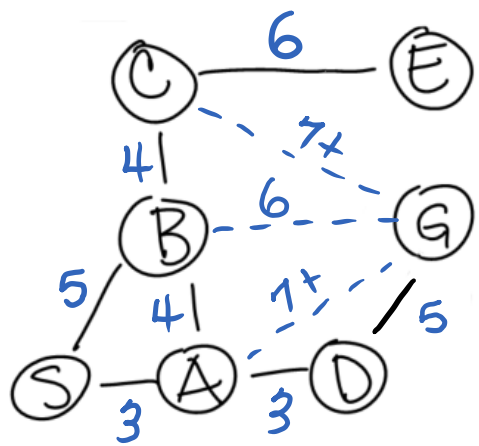
- ☐ *rule-based systems, Bayesian inference*

☐ Machine learning

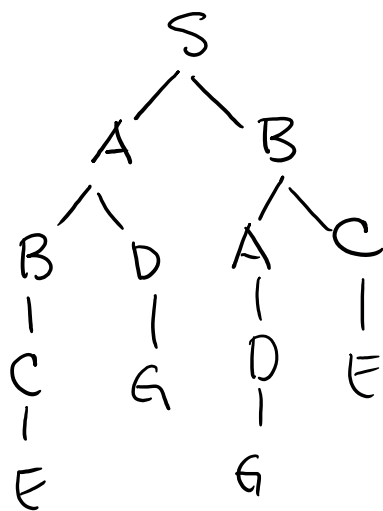
- ☐ *k-nearest neighbors, id trees, neural nets, deep neural nets, support vector machines, genetic algorithms, near miss/one-shot*

☐ Communication, perception, action

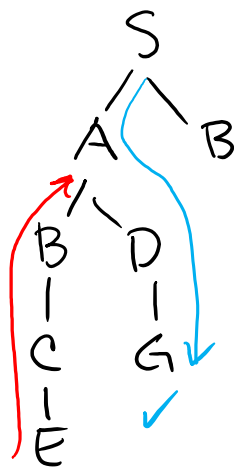
- ☐ *natural language processing, vision, robotics*



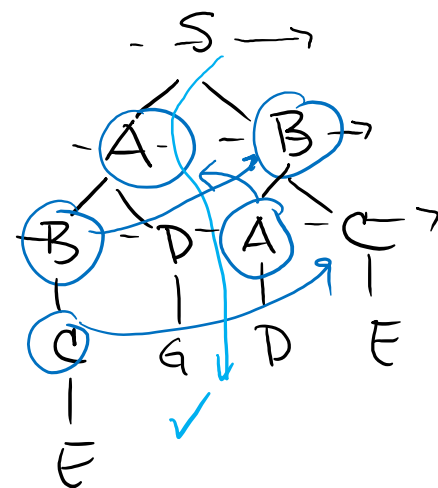
BRITISH MUSEUM



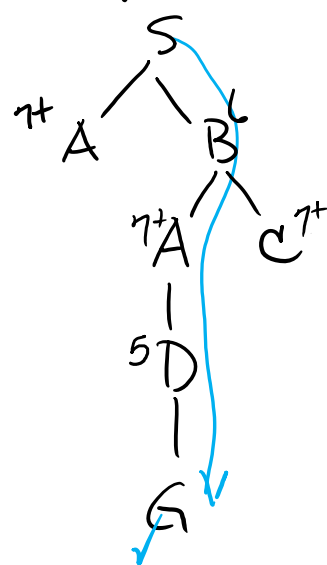
DFS



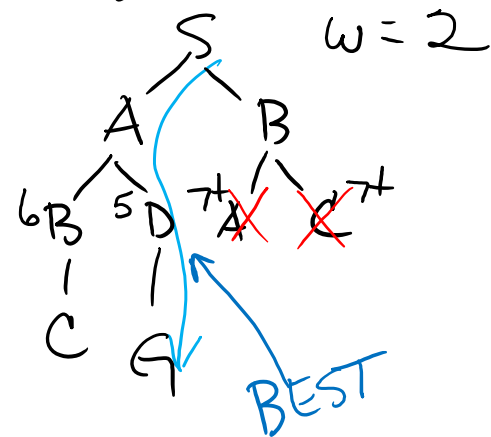
BFS



Hc



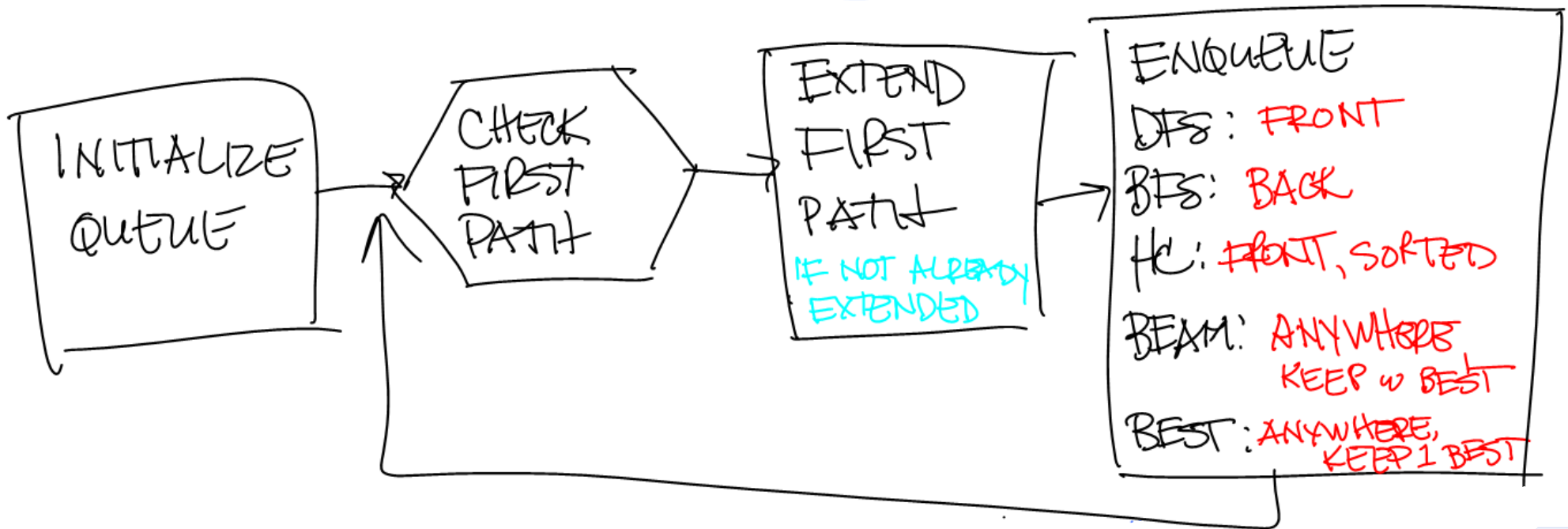
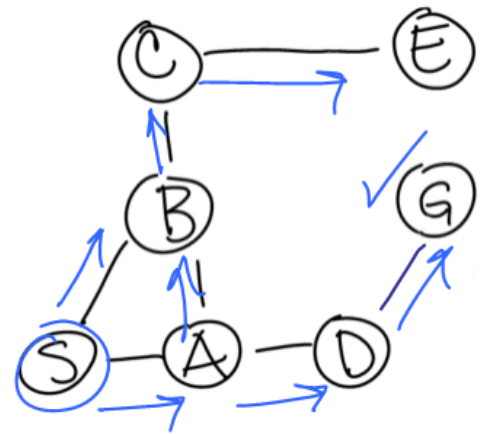
BEAM



	Backtrack	Extend 1st	Informed	Guaranteed Path
BRITMUS	X	X	X	✓
DFS	✓	✓	X	✓
BFS	✓	✓	X	✓
HC	✓	✓	✓	✓
BEAM	X	✓	✓	X

DFS:

~~(S)~~
~~(SA)~~ (SB)
~~(SAB)~~ (SAD) (SB)
~~(SABC)~~ (SAD) (SB)
~~(SABCE)~~ (SAD) (SB)
~~(SAD)~~ (SB)
 ✓ (SADG) (SB)



Problems with hill climbing?

