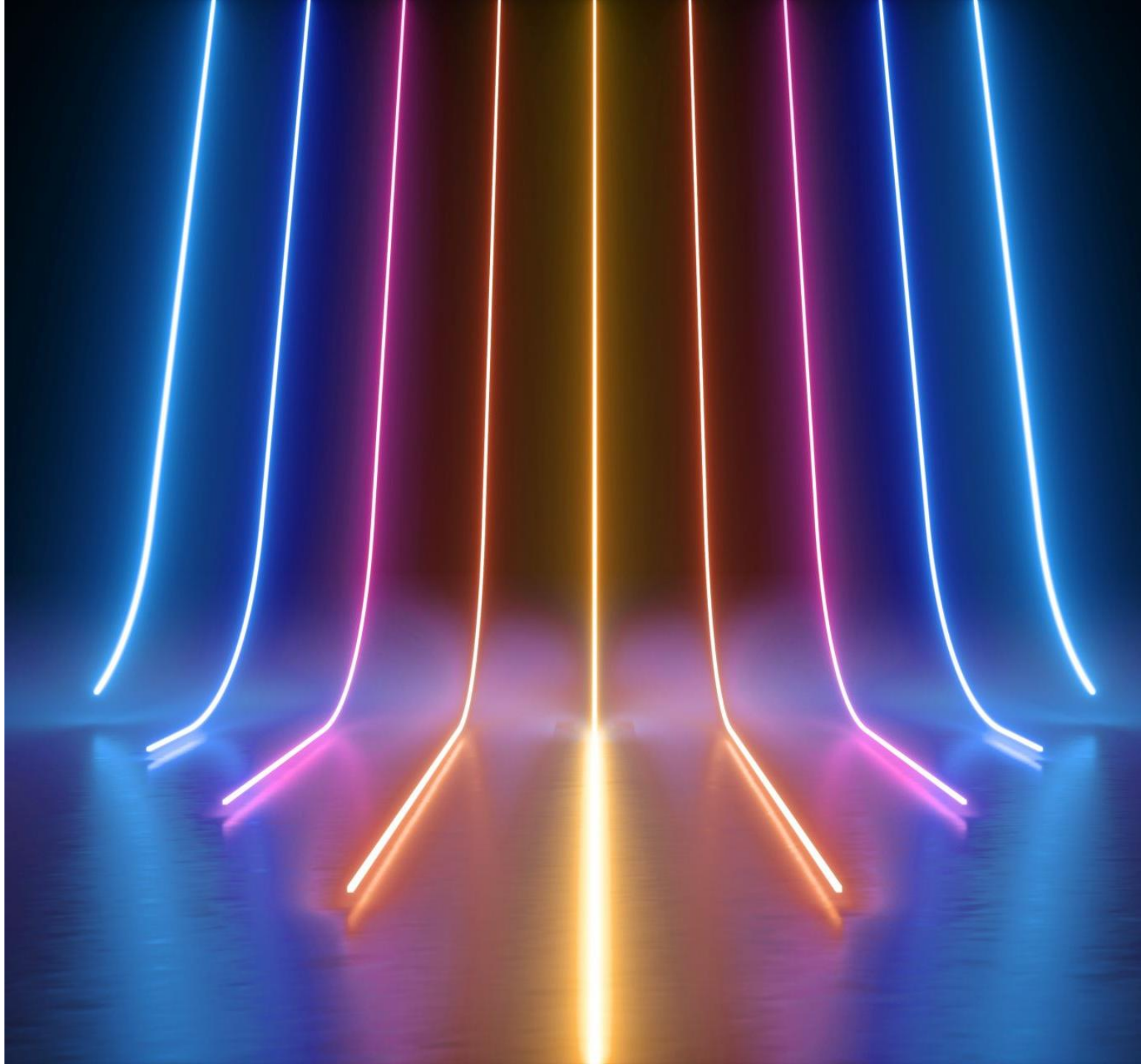
content:

compression between BFS and DFS



Key	BFS	DFS
Definition	BFS stands for Breadth First Search.	DFS stands for Depth First Search.
Data structure	BFS uses a Queue to find the shortest path.	DFS uses a Stack to find the shortest path.
Source	BFS is better when target is closer to Source.	DFS is better when target is far from source.
Suitability for decision tree	As BFS considers all neighbor so it is not suitable for decision tree used in puzzle games.	DFS is more suitable for decision tree. As with one decision, we need to traverse further to augment the decision. If we reach the conclusion, we won.
Speed	BFS is slower than DFS.	DFS is faster than BFS.
Time Complexity	Time Complexity of BFS = O(V+E) where V is vertices and E is edges.	Time Complexity of DFS is also O(V+E) where V is vertices and E is edges.
Memory	BFS requires more memory space.	DFS requires less memory space.
Tapping in loops	In BFS, there is no problem of trapping into finite loops.	In DFS, we may be trapped into infinite loops.
Principle	BFS is implemented using FIFO (First In First Out) principle.	DFS is implemented using LIFO (Last In First Out) principle.

Key	BFS	DFS
Example