

Roadmap For Practicing Data Structures and Algorithms

- **Arrays & Strings**
 - Basic Array and Strings Questions
 - Kadane's Algorithm
 - Dutch National Flag Algorithm
 - Sliding Window
 - Two pointers
- **Multidimensional arrays**
 - Traversal Based Problems
 - Rotation Based Problems
- **Recursion And Backtracking**
 - Basic Recursion Questions
 - Divide And Conquer
- **Sorting Algorithms**
 - Insertion Sort
 - Selection Sort
- **Binary Search Applications**
 - Binary Search on Arrays
 - Binary Search on Matrix
- **Linked Lists**
 - Reversal Problems
 - Sorting Problems
 - Slow And Fast Pointers
 - Modify In Linked list
- **Stacks & Queues**
 - Implementation Based Problems
 - Application Based Problems
- **Binary Trees**
 - Tree Traversals
 - Construction Of Trees
 - Tree Views
 - Standard Problems
- **BST**
 - Construction Of BST
 - Conversion Based Problems
 - Modification in BST
 - Standard Problems
- **Priority Queues and Heaps**
 - Implementation Based problems
 - Conversion based problems
 - K Based Problems

Graphs

- Graph Traversals – BFS And DFS
- MST
- Shortest Path Algorithms
- Topological Sort
- Graphs in Matrix
- **Dynamic Programming**
 - DP with Arrays
 - DP With Strings
 - DP With Maths
 - DP With Trees
 - Breaking And Partition Based Problems
 - Counting Based Problems
- **Hard Recursion and Backtracking Questions**
- **Other Topics**
 - Hashmaps
 - Tries
 - Bit Manipulation
 - Greedy
 - Circular Queues
 - Deques – Hot Topic
 - Doubly And Circular LL
 - String Algorithms like KMP and Z Algorithm