1. Array and Strings

Sliding Window

- 1. 3. Longest Substring Without Repeating Characters
- 2. 76. Minimum Window Substring
- 3. 567. Permutation in String
- 4. 438. Find All Anagrams in a String
- 5. 424. Longest Repeating Character Replacement

Two Pointers

- 1. 15. 3Sum
- 2. 16. 3Sum Closest
- 3. 11. Container With Most Water
- 4. 42. Trapping Rain Water
- 5. 88. Merge Sorted Array

Prefix Sum

- 1. 560. Subarray Sum Equals K
- 2. 238. Product of Array Except Self
- 3. 523. Continuous Subarray Sum
- 4. 525. Contiguous Array
- 5. 974. Subarray Sums Divisible by K

Kadane's Algorithm

- 1. 53. Maximum Subarray
- 2. 121. Best Time to Buy and Sell Stock
- 3. 152. Maximum Product Subarray
- 4. 198. House Robber
- 5. 213. House Robber II

2. Linked List

Reverse Linked List

- 1. 206. Reverse Linked List
- 2. 92. Reverse Linked List II
- 3. 25. Reverse Nodes in k-Group
- 4. 234. Palindrome Linked List
- 5. 143. Reorder List

Fast and Slow Pointers

- 1. 141. Linked List Cycle
- 2. 142. Linked List Cycle II
- 3. 876. Middle of the Linked List
- 4. 19. Remove Nth Node From End of List
- 5. 160. Intersection of Two Linked Lists

Merge Two Lists

- 1. 21. Merge Two Sorted Lists
- 2. 23. Merge k Sorted Lists
- 3. 148. Sort List
- 4. 147. Insertion Sort List
- 5. 86. Partition List

Cycle Detection

- 1. 141. Linked List Cycle
- 2. 142. Linked List Cycle II
- 3. 287. Find the Duplicate Number
- 4. 457. Circular Array Loop
- 5. 202. Happy Number

3. Trees and Graphs

Binary Tree Traversal

- 1. 94. Binary Tree Inorder Traversal
- 2. 144. Binary Tree Preorder Traversal
- 3. 145. Binary Tree Postorder Traversal
- 4. 102. Binary Tree Level Order Traversal
- 5. 103. Binary Tree Zigzag Level Order Traversal

BFS

- 1. 102. Binary Tree Level Order Traversal
- 2. 107. Binary Tree Level Order Traversal II
- 3. 199. Binary Tree Right Side View
- 4. 637. Average of Levels in Binary Tree
- 5. 515. Find Largest Value in Each Tree Row

DFS

- 1. 104. Maximum Depth of Binary Tree
- 2. 110. Balanced Binary Tree
- 3. 124. Binary Tree Maximum Path Sum
- 4. 543. Diameter of Binary Tree
- 5. 337. House Robber III

BST Operations

- 1. 98. Validate Binary Search Tree
- 2. 235. Lowest Common Ancestor of a Binary Search Tree
- 3. 700. Search in a Binary Search Tree
- 4. 701. Insert into a Binary Search Tree
- 5. 450. Delete Node in a BST

Graph Traversal

- 1. 133. Clone Graph
- 2. 200. Number of Islands
- 3. 207. Course Schedule
- 4. 210. Course Schedule II
- 5. 785. Is Graph Bipartite?

4. Dynamic Programming

• 1D DP

- 1. 70. Climbing Stairs
- 2. 198. House Robber
- 3. 300. Longest Increasing Subsequence
- 4. 53. Maximum Subarray
- 5. 1143. Longest Common Subsequence

2D DP

- 1. 64. Minimum Path Sum
- 2. 62. Unique Paths
- 3. 221. Maximal Square
- 4. 63. Unique Paths II
- 5. 120. Triangle

Knapsack Pattern

- 1. 416. Partition Equal Subset Sum
- 2. 494. Target Sum
- 3. 474. Ones and Zeros

- 4. 518. Coin Change 2
- 5. 1049. Last Stone Weight II

• Subsequence Pattern

- 1. 300. Longest Increasing Subsequence
- 2. 1143. Longest Common Subsequence
- 3. 1035. Uncrossed Lines
- 4. 1092. Shortest Common Supersequence
- 5. 392. Is Subsequence

5. Sorting and Searching

Binary Search

- 1. 33. Search in Rotated Sorted Array
- 2. 34. Find First and Last Position of Element in Sorted Array
- 3. 74. Search a 2D Matrix
- 4. 153. Find Minimum in Rotated Sorted Array
- 5. 162. Find Peak Element

Merge Sort

- 1. 912. Sort an Array
- 2. 148. Sort List
- 3. 315. Count of Smaller Numbers After Self
- 4. 493. Reverse Pairs
- 5. 327. Count of Range Sum

Quick Sort

- 1. 215. Kth Largest Element in an Array
- 2. 75. Sort Colors
- 3. 912. Sort an Array
- 4. 973. K Closest Points to Origin

5. 347. Top K Frequent Elements

Heap Sort

- 1. 215. Kth Largest Element in an Array
- 2. 378. Kth Smallest Element in a Sorted Matrix
- 3. 973. K Closest Points to Origin
- 4. 23. Merge k Sorted Lists
- 5. 295. Find Median from Data Stream

6. Backtracking

Permutations and Combinations

- 1. 46. Permutations
- 2. 47. Permutations II
- 3. 77. Combinations
- 4. 39. Combination Sum
- 5. 40. Combination Sum II

Subsets

- 1. 78. Subsets
- 2. 90. Subsets II
- 3. 491. Increasing Subsequences
- 4. 784. Letter Case Permutation
- 5. 1286. Iterator for Combination

Sudoku Solver

1. 37. Sudoku Solver

N-Queens

- 1. 51. N-Queens
- 2. 52. N-Queens II

7. Greedy Algorithms

Interval Scheduling

- 1. 435. Non-overlapping Intervals
- 2. 452. Minimum Number of Arrows to Burst Balloons
- 3. 763. Partition Labels
- 4. 646. Maximum Length of Pair Chain
- 5. 56. Merge Intervals

Minimum Spanning Tree

- 1. 1584. Min Cost to Connect All Points
- 2. 1135. Connecting Cities With Minimum Cost
- 3. 1168. Optimize Water Distribution in a Village
- 4. 1102. Path With Maximum Minimum Value
- 5. 1514. Path with Maximum Probability

Huffman Coding

- 1. 1094. Car Pooling
- 2. 451. Sort Characters By Frequency
- 3. 621. Task Scheduler
- 4. 767. Reorganize String
- 5. 1383. Maximum Performance of a Team

8. Bit Manipulation

Basic Bit Operations

- 1. 136. Single Number
- 2. 191. Number of 1 Bits
- 3. 231. Power of Two
- 4. 190. Reverse Bits
- 5. 338. Counting Bits

Bit Masks

- 1. 78. Subsets
- 2. 784. Letter Case Permutation
- 3. 131. Palindrome Partitioning
- 4. 401. Binary Watch
- 5. 693. Binary Number with Alternating Bits

XOR Problems

- 1. 136. Single Number
- 2. 260. Single Number III
- 3. 137. Single Number II
- 4. 421. Maximum XOR of Two Numbers in an Array
- 5. 268. Missing Number

9. Stack and Queue

Monotonic Stack

- 1. 84. Largest Rectangle in Histogram
- 2. 85. Maximal Rectangle
- 3. 739. Daily Temperatures
- 4. 496. Next Greater Element I
- 5. 503. Next Greater Element II

Monotonic Queue

- 1. 239. Sliding Window Maximum
- 2. 862. Shortest Subarray with Sum at Least K
- 3. 1425. Constrained Subsequence Sum
- 4. 1696. Jump Game VI
- 5. 239. Sliding Window Maximum

Queue-based BFS

- 1. 994. Rotting Oranges
- 2. 1091. Shortest Path in Binary Matrix
- 3. 1162. As Far from Land as Possible
- 4. 542.01 Matrix
- 5. 1306. Jump Game III

10. Hashing

Hash Map

- 1. 1. Two Sum
- 2. 3. Longest Substring Without Repeating Characters
- 3. 560. Subarray Sum Equals K
- 4. 128. Longest Consecutive Sequence
- 5. 49. Group Anagrams

Hash Set

- 1. 217. Contains Duplicate
- 2. 219. Contains Duplicate II
- 3. 349. Intersection of Two Arrays
- 4. 202. Happy Number
- 5. 290. Word Pattern

Trie

- 1. 208. Implement Trie (Prefix Tree)
- 2. 212. Word Search II
- 3. 648. Replace Words
- 4. 677. Map Sum Pairs
- 5. 211. Design Add and Search Words Data Structure

11. Advanced Data Structures

Segment Tree

- 1. 307. Range Sum Query Mutable
- 2. 308. Range Sum Query 2D Mutable
- 3. 315. Count of Smaller Numbers After Self
- 4. 327. Count of Range Sum
- 5. 218. The Skyline Problem

Fenwick Tree

- 1. 307. Range Sum Query Mutable
- 2. 308. Range Sum Query 2D Mutable
- 3. 315. Count of Smaller Numbers After Self
- 4. 493. Reverse Pairs
- 5. 1649. Create Sorted Array through Instructions

Union-Find

- 1. 200. Number of Islands
- 2. 684. Redundant Connection
- 3. 721. Accounts Merge
- 4. 952. Largest Component Size by Common Factor
- 5. 990. Satisfiability of Equality Equations