

Perfect 🌟 thanks for clarifying. Yes — **2 hours daily for 3 months** is absolutely enough to reach **basic-to-medium DSA interview level** (especially as a fresher). You don't need to master hard-level problems for most entry-level jobs — **clarity in basics + ability to solve medium problems** is what interviewers test.

Here's a **90-day (3-month) DSA roadmap** for you, assuming **2 hrs/day**:



Month 1: Foundations (Basics + Easy Problems)

Goal: Get comfortable with syntax, patterns, and problem-solving in Python.

- Week 1:
 - Time & Space Complexity basics
 - Arrays (traversal, min/max, reverse, rotation, prefix sum)
 - 15–20 problems
- Week 2:
 - Strings (palindrome, anagram, substring search, frequency count)
 - Hashing basics (dict, set in Python)
 - 15–20 problems
- Week 3:
 - Recursion basics (factorial, Fibonacci, sum of array, subsets)
 - Sorting (Bubble, Selection, Insertion, Merge, Quick)
 - 15–20 problems
- Week 4:
 - Searching (binary search, first/last occurrence, sqrt, peak element)
 - Practice mixed problems from arrays & strings
 - 20+ problems

✓ By end of Month 1 → You'll be strong in **arrays, strings, recursion, sorting, searching**.



Month 2: Data Structures

Goal: Start applying DSA to more structured problems.

- Week 5:
 - Linked List (SLL, DLL, reverse, middle, cycle detection)
 - 10–15 problems
- Week 6:
 - Stacks (using list/collections.deque)
 - Queues (circular queue, deque, priority queue)
 - 15 problems
- Week 7:
 - Trees (binary tree basics: traversal, height, diameter, leaf nodes)
 - Binary Search Tree (insertion, search, inorder traversal)
 - 15 problems
- Week 8:
 - Hashing (map, set, frequency, 2-sum, subarray sum problems)
 - Mix practice (linked list + stack + queue)
 - 15–20 problems

 By end of Month 2 → You'll know **linked list, stack, queue, trees, hashing**.

Month 3: Intermediate & Interview Prep

Goal: Medium-level problem-solving + confidence for interviews.

- Week 9:
 - Recursion + Backtracking (n-queen, rat in maze, permutations, subsets)
 - 10–12 problems
- Week 10:
 - Graph basics (BFS, DFS, adjacency list, shortest path BFS)
 - 10–12 problems
- Week 11:
 - Dynamic Programming (Fibonacci, knapsack, coin change, LIS basics)
 - 10–12 problems

- Week 12:
 - Mock interview sets (arrays, strings, linked lists, trees, recursion)
 - Revise formulas + practice 30–40 mixed problems

✓ By end of Month 3 → You'll be **interview ready** for fresher roles.

Problem Count (3 months target)

- Easy: ~150 problems
- Medium: ~80 problems
 - ➡ Total: ~230–250 problems (that's more than enough for fresher-level interviews).

Tips for Success

- Use **LeetCode** + **GeeksforGeeks** + **Striver's A2Z DSA sheet** for problem sets.
 - Track your progress (e.g., 2 problems/day minimum).
 - Focus on **patterns** → most interview problems are variations of common patterns.
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 So yes, **2 hrs/day × 3 months = enough to crack DSA-based interviews** as a fresher.

Do you want me to make this into a **daily study timetable** (like Day 1: arrays intro + 3 problems, Day 2: reverse array + 2 problems, etc.) so it feels like a structured course?

 That's the spirit! You'll build confidence much faster if you solve **topic-wise problems** in the same order as the roadmap. I'll give you a **curated problem set for each week** — not too overwhelming, but enough to cover all interview patterns.

3-Month DSA Roadmap with Problems

Month 1 – Foundations

Week 1: Arrays (Basics)

- Find minimum and maximum in an array
 - Reverse an array
 - Rotate array by k steps (left/right)
 - Check if array is sorted
 - Move all zeros to the end
 - Find the missing number in 1–N
 - Kadane's Algorithm (Maximum subarray sum)
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Week 2: Strings

- Reverse a string
 - Check if a string is palindrome
 - Count vowels and consonants
 - Check if two strings are anagrams
 - Remove duplicates from string
 - First non-repeating character
 - Longest common prefix
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Week 3: Recursion + Sorting

- Factorial of n
 - Fibonacci series (recursive)
 - Print all subsets of an array
 - Generate all permutations of a string
 - Tower of Hanoi
 - Merge Sort implementation
 - Quick Sort implementation
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Week 4: Searching

- Linear Search
 - Binary Search (basic)
 - First and Last occurrence of element in sorted array
 - Search in rotated sorted array
 - Square root of a number (binary search method)
 - Peak element in array
 - Floor and Ceil in sorted array
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Month 2 – Data Structures

Week 5: Linked List

- Implement singly linked list (insert, delete, traverse)
 - Reverse a linked list (iterative + recursive)
 - Find middle of linked list
 - Detect cycle in linked list (Floyd's cycle detection)
 - Merge two sorted linked lists
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Week 6: Stacks & Queues

- Implement stack using array
 - Implement stack using 2 queues
 - Next Greater Element
 - Valid Parentheses (balanced brackets)
 - Implement queue using array
 - Implement circular queue
 - Sliding window maximum
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Week 7: Trees

- Inorder, Preorder, Postorder traversals (recursive + iterative)
- Height of binary tree

- Count leaf nodes
 - Diameter of binary tree
 - Check if two trees are identical
 - Lowest common ancestor in BST
 - Level order traversal (BFS in tree)
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Week 8: Hashing

- Find first repeating element in array
 - Count frequency of elements in array
 - Two Sum problem
 - Subarray with given sum (hashing approach)
 - Longest subarray with zero sum
 - Intersection of two arrays
 - Longest substring without repeating characters
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Month 3 – Intermediate & Interview Prep

Week 9: Recursion + Backtracking

- Generate all subsets of a string
 - Rat in a Maze problem
 - N-Queens problem
 - Word Search (matrix backtracking)
 - Sudoku Solver
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Week 10: Graphs

- BFS traversal of graph
- DFS traversal of graph
- Detect cycle in graph (DFS/BFS)
- Shortest path in unweighted graph (BFS)

- Number of islands (grid graph)
 - Topological Sort
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Week 11: Dynamic Programming

- Fibonacci using DP (memoization + tabulation)
 - Climbing Stairs problem
 - Coin Change problem
 - 0/1 Knapsack problem
 - Longest Increasing Subsequence (LIS)
 - Edit Distance
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Week 12: Final Interview Prep (Mixed)

- Majority element in array
 - Stock Buy and Sell (max profit)
 - Rotate Linked List
 - Validate Binary Search Tree
 - Minimum Spanning Tree (Kruskal/Prim basic)
 - Maximum Subarray Product
 - Word Break problem
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 If you complete this **curated set (~150–180 problems)** in 3 months, you'll be at **basic-to-medium DSA mastery level**, good enough for most **fresher interviews**.

 Do you want me to also **map these problems day-by-day** (like Day 1: Array min/max + reverse, Day 2: Rotate array + check sorted, etc.), so you can directly follow a daily plan without thinking what to pick?