GATE DA
PROGRAMMING, DATA STRUCTURES AND ALGORITHMS

About Me

VENKATESH E

🎓 Master's in AI from IIT Hyderabad

💼 MLE-3 at PayPal (ex-Qualcomm)

🥇 3+ years of Machine Learning Engineering experience

🗣️ Taught GATE Data Science on RBR Sir's platform (Gate DA - 2024)

📝 Published research papers in AAAI 2021 & ACL 2023

🔗 LinkedIn: https://www.linkedin.com/in/venkateshelangovan/

📘 GATE Official Syllabus Breakdown

✅ Programming in Python
✅ Basic Data Structures: Stacks, Queues, Linked Lists, Trees, Hash Tables
✅ Search Algorithms: Linear Search, Binary Search
✅ Sorting Algorithms: Selection Sort, Bubble Sort, Insertion Sort
✅ Divide and Conquer: Mergesort, Quicksort
✅ Introduction to Graph Theory
✅ Basic Graph Algorithms: Graph Traversals, Shortest Path

📝 DSA Complete Chapter Breakdown
1️⃣ Programming Fundamentals (15+ hours)
Covers: Python Basics, Functions, Recursion, Time Complexity Analysis

2️⃣ Basic Data Structures (12 hours)
Covers: Arrays, Stacks, Queues, Linked Lists, Hash Tables

3️⃣ Trees & Graphs (14 hours)
Covers: Trees, Binary Trees, BSTs, Graphs (Representation, Basics)

4️⃣ Searching & Sorting (10 hours)
Covers: Linear Search, Binary Search, Selection Sort, Bubble Sort, Insertion Sort

5️⃣ Divide and Conquer (8 hours)
Covers: Mergesort, Quicksort, Strassen's Matrix Multiplication

6️⃣ Graph Algorithms (8 hours)
Covers: BFS, DFS, Shortest Path Algorithms (Dijkstra, Bellman-Ford, Floyd-Warshall)

7️⃣ Problem Solving & GATE PYQs (6 hours)
Covers: Basic, Intermediate, and Advanced GATE Problems