

# DSA STUDY GUIDE

Coding Interview Study Materials for Data Structure & Algorithm



## TIME & SPACE COMPLEXITY

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- Bari's Algorithm Playlist(1-16)

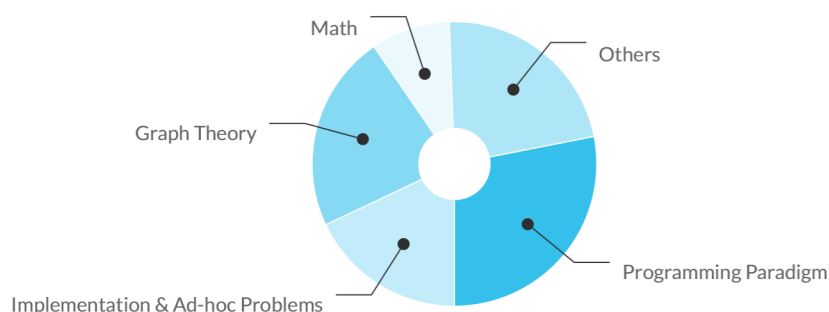
## DATA STRUCTURE

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- Data Structures Full Tutorial from a Google Engineer

## ALGORITHMS

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## IMPLEMENTATION & AD-HOC

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- Implementation Section of Hackerrank

## GRAPH THEORY

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- Graph Theory Full Tutorial from a Google Engineer

## MATH

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- MIT 6.042J Mathematics for Computer Science(Playlist)
- MIT 6.042J Mathematics for Computer Science(Text)
- Competitive Programming Algorithms(Algebra Section)

## OTHERS(STRING & BIT MANIPULATION)

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- Competitive Programming Algorithms(String Section)
- HackerEarth Bit Manipulation Tutorial
- TopCoder Fun with Bits Tutorial

## BEST DSA STUDY LINKS (GOLD)

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- TopCoder Competitive Programming Tutorials
- Technical Interview Guide by Yangshun
- HackerEarth CodeMonk(Step by step Guide)

## PROGRAM. PARADIGM

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- Recursion
- Brute Force
- Backtracking
- Branch & Bound
- Divide & Conquer
- Greedy
- Dynamic Programming

## RECURSION

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- Recursion Playlist by mycode-school on Youtube
- Bari's Algorithm Playlist(18-29)
- SparkNotes on Types of Recursion
- Chapter 4 from Introduction to Algorithm by CLRS

## DIVIDE & CONQUER

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- Bari's Algorithm Playlist(18, 33-38)

## BACKTRACKING

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- Bari's Algorithm Playlist(63-67)

## BRANCH & BOUND

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- Bari's Algorithm Playlist(68-71)

## GREEDY

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- Bari's Algorithm Playlist(39-45)

## DYNAMIC PROGRAM.

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- Dynamic Programming Patterns by aatalyk on LeetCode.
- Bari's Algorithm Playlist(46-60)
- Tushar Roy's Dynamic Programming Playlist on Youtube
- MIT OCW Introduction to Algorithm(19,20-22,26-27,39-45)
- What is memoization and how can I use it in Python?