Basic Programming

- C++ Basics.
- Conditionals, loops etc.
- Time Complexity
- Constraints
- Integer Overflow
- Try multiple coding platforms

Resources
- Luv cp Playlist

STL

- Sorting
- Vector
- Stack
- Queue
- Set
- Map
- Iterators

Resources
- Luv cp Playlist

Number theory

- Number system
- GCD, LCM.
- Sieve of eratosthenes
- Modular Arithmetic
- Binary Exponentiation

Resources
- CP algorithms algebra section
- Utkarsh gupta Maths video
- CSES Problemset

Maths

- Permutations and Combinations

Resources
- CSES Problems
- Codeforces combinatorics tag
- Atcoder

Binary search

- Binary search basics.
- Upper_bound, Lower_bound.
- Binary search on answer.

Resources
- Luv cp Playlist
- Priyansh Agrawal
- CSES Problemset

Bit manipulation

- AND, OR, XOR, Left shift, right shift.
- Common techniques

Resources

- Luv cp playlist
- Codechef contests.

Some techniques

- Prefix-suffix sum
- Sliding window
- Two pointer
- Greedy

Dynamic Programming

- Standard DP problems.
- Bitmask, digit dp.

Resources
- Aditya Verma DP playlist
- CSES Problemset
- Atcoder dp contest

Graphs

- DFS, BFS
- Connected components
- Cycles
- Dijkstra
- Floyd-warshall

Resources
- Striver DP playlist
- CP algorithms
- CSES Problemset

Problem Solving

- C2oj Ladder
- ACD ladder
- CSES Problemset
- Random problem solving