











## Complete Roadmap & free course! (complete beginners & intermediate)

Free course, referrals, job opportunity, resume, coding, everything

#### About me.

- Top 1% globally at Leetcode (Knight Badge)
- Expert at codeforces.
- $5 \stackrel{\checkmark}{\Rightarrow} \stackrel{?}{\Rightarrow} \stackrel{?}{\Rightarrow} \stackrel{?}{\Rightarrow}$  at codechef
- Software engineer at Microsoft. (2022-present)
- Ex-crypto exchange developer (2019-2020)
- Masters from IIT Roorkee. (2022)

#### All you need.

#### Have a nice coding profile

- Be an active coder on codeforces, codechef, leetcode.
- Solve as many problems as you can! (quality over quantity though)

Have a nice project on your resume (don't need to be Zuck!)

Immense knowledge of data structures and algorithms.

Reflect your passion for technology!

Decent CGPA (not 9.9/10).

Fine soft skills (don't need to be Shashi Tharoor!)

Just to convey your thought process.

#### Referrals?

Have a nice coding profile,

Cold texting

Watchout for opportunities

Check the LinkedIn post to know more (link ir the description).

Can reach out to me for referrals for Microsoft.

Having a good resume would give you ample of opportunities to you anyway

#### Coding! Coding! Coding!

- Yes the most important aspect!
- Why coding?
  - Makes us better at problem solving
  - Makes mind sharper
  - Gives a true sense of competition
  - Compete with the best!
  - Learning almost everything becomes a lot easier
  - Ever lasting process
  - JOB!

#### What's coding?

- Arbitrary term, so let's call it problem solving.
- Solve a given problem with the help of an algorithm
- Give instructions to the computer to perform operations and get the desired output
- Wait... do computers understand human readable lang?
  - No hence, we communicate with them in programming languages, such as CPP, python, java etc.
- Well how to get better at it?
  - Practice makes a man perfect (woman too).
  - How much would all of it cost?
    - Only costs time! Not money!

#### How to proceed?

- I got ya!
- Why follow my roadmap (rather than building your own?)
  - You can! It just would be easier to follow this.
  - I'll share my experience and mistakes so that you grow!
  - Doubt clearing sessions/ clear doubts with peers.
  - Gradually learn along with others.

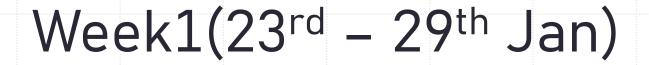
#### Tips for roadmap!

- Try to solve all the question (would be provided every week)
- Join discord! (we all would grow together!)
- Clarify doubts in the group!
- Try to help your peers.
- If you're left behind, try your best to pick up the pace!
- Try contests, even if you are unable to solve a single question (DON'T CHEAT)
- See the upsolving videos to understand the logic/intuition.
- BE CONSISTENT!

### Week0 (16<sup>th</sup> -22<sup>nd</sup> Jan)

- Common for both beginners and intermediate people!
- C++ (what, why, how) super nooooob level!
- Combinatorics (basic maths)
- STL (standard template library)
- Platforms you need!
- Bit manipulations!







**Beginners** 

Hashing

Strings



Intermediate

Heaps

Recursion

#### Week2(30<sup>th</sup> Jan-5<sup>th</sup> Feb)



**Beginners** 

2 pointersSliding window



Intermediate

Linked Lists
Binary trees (part-1)

#### Week3(6<sup>th</sup>-12<sup>th</sup> Feb)



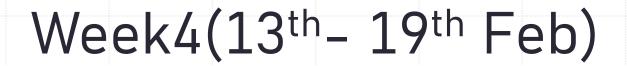
**Beginners** 

Sorting sets



Intermediate

Binary trees (part-2) Binary search tree!





Queue/ Deque Stacks



Intermediate

Graphs!

#### Week5(20<sup>th</sup>- 26<sup>th</sup> Feb)



**Beginners** 

Greedy



Intermediate

DP

#### Week6(27th Feb - 6th Mar)



**Beginners** 

Binary search



Intermediate

Backtracking

#### Topics covered



#### **Beginners**

Hashing

Strings

2 pointers

Sliding window

Sorting

Sets

Queue, deque, stack

Greedy algo

Binary search



#### Intermediate

Heaps

Recursion

Linked lists

Binary tree and BST

Graphs

DP

Backtracking

#### Week7 and beyond (7th Mar ->.....)

#### Beginners

- Congrats! You are no longer a beginner! ✓
- Start the intermediate playlist

#### Intermediate

- Will start studying Tries (week7), Union find (week8) and Segment trees (week9)
- Will study complex algorithms like binary lifting, lazy segment tree etc after course completion in adhoc manner!

# Are these dates flexible?

- I would like them to be
  - But I would follow your pace
  - Should be more or less same
  - Keeping room for uncalled circumstances.

#### Requests?

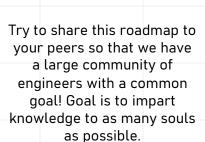


It's my effort of acquiring

and imparting knowledge as

I learn.







Try to help others as you grow! (trust me nothing gives more pleasure)



Try being honest to yourself at least.



Keep helping others, keep coding and keep spreading knowledge.

# Thanks! All The Best Happy coding!