For starters:

- Start solving questions from A and B ladder. The link for the ladder is: https://earthsha
- kira.github.io/a2oj-clientside/server/Ladders.html
- Learn standard template library(stl) in c++ or Java.
  For c++:
  https://www.youtube.com/watch?v=R5BEcvTVZj0&list=PLauivoElc3gh3RCiQA82MDI-gJfXQQVnn
- Learn algorithms like: Sorting, Prefix sum, suffix sum, Binary search, Two pointer, Binary Exponentiation, GCD, Sieve of Eratosthenes.
  For binary search and two pointer you can follow the codeforces edu section:
  https://codeforces.com/edu/course/2
  For Binary Exponentiation, GCD, Sieve of Eratosthenes explanation of pdf is provided with some sample questions.
- Also solve problem of Introductory, Mathematics, String section of cses. https://cses.fi/problemset/
- For any explanation follow: https://cp-algorithms.com/
- Regularly give cf, cc contest and try to up-solve the questions that you are unable to solve in contest.

The one who have done the above things and have a good grip over them:

- GRAPH & Trees: Start learning graph algorithms (implementation). Start with luv playlist for graphs.

https://www.youtube.com/watch?v=hE97YT-347U&list=PLauivoElc3ghxyYSr_sVnDUc_ynPk6iXE

Also, you can follow stiver playlist.

https://www.youtube.com/watch?v=M3_pLsDdeuU&list=PLgUwDviBIf0oE3gA41TKO2H5bHpPd7fzn

For solving purpose:
1. Solve the questions provided in the link below.
   https://docs.google.com/document/d/15ZfKFFLiLnsnO75o2W2G8XVjr9_cDQgf3BfgP6lxH2Q/edit?usp=sharing
   https://docs.google.com/document/d/1WEDj_5N0c9pHjUr4Ug-PfARWUrZx3J_fL4HjCm6epQg/edit?usp=sharing
2. Solve the graph and tree section of cses.
   https://cses.fi/problemset/

- Dynamic Programming (DP): One pdf is there in the folder for the basic algorithms of dynamic programming. For more learning, you can follow:
  https://www.youtube.com/watch?v=tyB0ztf0DNY&list=PLg0aancPZwRazLXPEW-vu517p3gXVCn0b
  For practice:
  1. Solve questions of cses DP section.
     https://cses.fi/problemset/
  2. Solve dp contest of atcoder:
     https://atcoder.jp/contests/dp
  3. Some questions are provided in the pdf in the folder.

- Segment Tree: For learning purpose follow codeforces edu section. https://codeforces.com/edu/course/2 And the for solving questions are provided in the pdf.

Extra Topics for online test:

- TRIE Data structure: Follow series of striver: https://www.youtube.com/watch?v=dBGUmUQhjaM&list=PLgUwDviBIf0pcIDCZnxhv0LkHf5KzG9zp
- KMP String matching: https://www.youtube.com/watch?v=lhhqbGH7Pao

If done all that. Start solving interview-bit programming ladder for interviews purpose.
https://www.interviewbit.com/courses_v2/programming