Here's a free roadmap to improve programming skills and DSA for coding interviews:

Step 1: Master a Programming Language (Java/Python)

★ Choose one: If you plan to give interviews in Java, start with Java; otherwise, Python is also good.

IJ Java Resources (FREE)

- Java Programming GeeksforGeeks
- Java Tutorial W3Schools
- Java 8+ Features Learn Java
- <u>Java Roadmap for Interviews</u>

Yellow Python Resources (FREE)

- Python Docs
- Python for Beginners W3Schools
- Python DSA GeeksforGeeks
- 100+ Python Problems LeetCode

Step 2: Data Structures & Algorithms (DSA)

★ Learn and practice DSA to clear coding interviews.

⊘ DSA Roadmap

- 1 **Start with Basics:** Arrays, Strings, Hashmaps, Recursion
- 2 Move to Advanced Topics: Linked Lists, Stacks, Queues, Trees, Graphs, Dynamic Programming

V DSA Free Learning Resources

- NeetCode (Best Free DSA Roadmap)
- DSA Handbook CS50
- Kunal Kushwaha's DSA Playlist (Java)
- LeetCode Top Interview 150 (Free Problems)
- Striver's DSA Sheet (Best for Fast Learning)
- CSES Problem Set (Competitive Practice)

Step 3: Problem Solving Platforms

★ Solve problems daily to get better.

Platform	Best For	Link
LeetCode	Best for coding interviews	<u>LeetCode</u>
HackerRank	Learning & basic DSA	<u>HackerRank</u>
Codeforces	Competitive programming	Codeforces
GeeksforGeeks	DSA theory & problems	<u>GFG</u>
AtCoder	Harder problems & contests	<u>AtCoder</u>

Step 4: System Design & Interview Preparation

★ Once DSA is strong, prepare for real-world problems.

∜ Free System Design Resources

- Grokking System Design (Free Notes)
- System Design for Beginners GFG
- System Design Interview Questions

⊘ Mock Interviews (Free Practice)

- Pramp (Peer-to-Peer Mock Interviews)
- Interviewing.io (Mock Interviews with Engineers)

Step 5: Practice Daily & Track Progress

★ Follow a consistent plan

- Solve at least 1-2 problems daily on LeetCode
- Review DSA concepts weekly using NeetCode & GFG
- Join contests on Codeforces & AtCoder to improve speed

b Bonus: Weekly Plan for Beginners

DayTopicResourceMondayArrays & StringsNeetCode, LeetCode Easy

Day	Topic	Resource
Tuesday	Hashmaps & Sets	GFG, LeetCode Medium
Wednesday	Recursion & Backtracking	Striver's DSA Sheet
Thursday	Linked Lists & Stacks	NeetCode, Codeforces
Friday	Trees & Graphs	NeetCode, LeetCode
Saturday	Dynamic Programming	Striver's DP Sheet
Sunday	Mock Interview & Contest	Pramp, Codeforces Contest

Final Advice

- Start with Python or Java and master it.
- Solve at least 300+ problems before interviews.
- Use LeetCode, NeetCode, and Codeforces for strong DSA skills.
- Practice System Design if aiming for senior roles.

Would you like a more detailed **personalized** study plan based on your current skill level? **29**