Senior Software Engineer

Technical Screen Interview Guide



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Welcome to your preparation guide for your initial interview at Meta. Our engineers and recruiters have put this guide together so that you know what to expect and how to prepare for your interview; it will help you to be successful in your application for a senior software engineering position at Meta.

Before you get started, it's important to note that Meta is committed to providing reasonable support (called accommodations) in our recruiting processes for candidates with disabilities, long term conditions, mental health conditions or sincerely held religious beliefs, or who are neurodivergent or require pregnancy-related support. If you need support, please reach out to accommodations-ext@fb.com or your recruiter.

Interview Overview

Meta looks for engineers with extensive technical skills who are passionate about solving deep challenging problems. In addition to demonstrating technical expertise, we expect Meta engineers to effectively communicate technical and non-technical information, as well as be able to discuss driving and executing ideas across diverse teams and stakeholders. This interview is designed for you to provide us with an understanding of your engineering and technical leadership experience, as well as demonstrate your coding and problem-solving skills.

Technical skills aren't the same as interview skills, so even the most experienced engineers need to prepare and practice to do well in an interview. Note, it's difficult for interviewers to get a clear signal on coding ability from someone who hasn't practiced solving new problems under time constraints, so we recommend that even the most experienced engineers sharpen those skills in advance.

60-Minute Technical Screening Interview

Your interview will cover the following topics:

- Technical Leadership Experience and Scope
- Cross-Functional Collaboration
- Technical and Coding Skills

What We Look For

For this role we are looking for engineers who are operating at a high level and with a large scope. While this is not a people management role, please able to speak to and highlight your technical leadership and cross-functional collaboration experience, such as:

- Setting technical direction
- Designing and/or implementing a technical process, either within a team or more broadly across a wider organization
- · Metric and goal setting
- Roadmap planning
- Working cross-functionally to drive projects across a platform, organization, or team
- Managing and aligning stakeholders
- Resolving cross-functional conflict

We may ask you to:

- Discuss anything that is on your resume, including current projects and details
- Provide specific examples about what you have done in the past and discuss the resulting impact

In addition to questions about your cross-functional collaboration and technical leadership experience, you will also be asked technical coding questions. Help your interviewer understand the value you could bring by focusing on these traits and abilities:

- Communication. Are you asking for requirements and clarity when necessary, or are you just diving into the code? Your initial tech screen should be a conversation, so don't forget to ask questions.
- **Problem solving.** We're evaluating how you comprehend and explain complex ideas. Are you providing the reasoning behind a particular solution? Developing and comparing multiple solutions? Using appropriate data structures? Speaking about space and time complexity? Optimizing your solution?
- **Coding.** Can you convert solutions to executable code? Is the code organized and does it capture the right logical structure?
- Verification. Are you considering a reasonable number of test cases or coming
 up with a good argument for why your code is correct? If your solution has
 bugs, are you able to walk through your own logic to find them and explain
 what the code is doing?



How to Prepare

The first part of your interview will focus on behavioral questions to assess the scope of your technical leadership experience. For example, your interviewer will ask questions like, "Can you provide an example of...?" or "Tell me about a time that...?". Your interviewer will seek to understand the scope of your technical leadership experience and breadth and depth of your responsibilities. Your interviewer will also seek to understand how you handle challenging relationships and stakeholders.

Example questions will be similar to the following:

- Tell me about a successful initiative you worked on that required collaboration across teams.
- Tell me about a time you experienced a challenging relationship with another team

The second part of your interview will focus on technical coding questions. In addition to the preparation guidance below, **this video** will give you an example of what to expect during your technical screen.

1. Before you practice, plan!

Be honest with yourself—only you know how much prep time you'll need. Make the most of your prep time by following these steps to plan your approach before you start practicing.

- Schedule time to study and practice. Block out time every day to write code. Target medium and hard problems.
- **Prioritize breadth over depth.** It's much better to practice solving fewer example problems of many problem types than to become very familiar with one type at the expense of the others.
- Set aside time to review what you've practiced. As you solve problems, make cheat sheets or flash cards to review later. Revision and repetition will strengthen your understanding of core concepts.
- Remember your goal. Aim for confidently solving two questions—while thinking aloud—in about 35 minutes.

2. Use key practice strategies to practice effectively

Reading through sample questions, recognizing concepts, and having a vague understanding of these concepts won't be enough to help you shine. You need to practice! Make sure you're setting your practice sessions up for success by following these tips from engineers who've been through the process.

Practice coding the way you'll code during your tech screen. Use CoderPad.
io if your interview is via phone or video call, or use a whiteboard or pen and
paper if your interview will be in person. Check with your recruiter if you're not
sure which format you'll use.



- Set a time constraint when you practice problems. In your tech screen, you'll be asked to solve two problems in roughly 35 minutes. Practice coding solutions to medium and hard problems in less than 15 minutes each to help you be ready for the constraints during the interview. There are resources available in the Preparation Hub within your Career Profile such as coding puzzles and practice interviews.
- Code in your strongest language. Provide the most efficient solution, and find and fix the bugs yourself.
- Practice talking through the problem space and possible solutions before you dive in, and talk through your decisions out loud as you code. Interviewers will be evaluating your thought process as well as your coding abilities. Explaining your decisions as you code is crucial to helping them understand your choices. The more you practice this, the more natural it will feel during the interview.
- Request a Mock Interview with a Meta Engineer. If your technical screen is at least 10 days away, you're able to request a 1:1 practice interview with a Meta Engineer through your Career Profile. Ask your recruiter if you have questions.

3. Understand the types of problems you may encounter

Practice a variety of different problems—and understand why we ask them—so you're prepared to solve them during your interview.

- Don't be surprised if the questions sound contrived. Problems may be different than what you're probably tackling in a day-to-day job. We won't ask a "puzzle" question, but questions may be different than real-world questions because they need to be described and solved in 10-20 minutes.
- Problems may assess the depth of your knowledge and your versatility. For
 example, your interviewer might ask you to solve a problem any way you want.
 Then, they could add constraints on the running or space characteristics and
 ask you to solve it again.
- **Problems may focus on edge cases.** You might be asked to parse some data format or mini language. Your answers demonstrate your ability to handle multiple states in your head.
- Problems may test how well you know how things work under the hood. For example, you might be asked to implement well-known library functions.

4. Decide what resources you'll use to prepare

It's easy to be overwhelmed by the number of online resources or the detail in an entire theoretical algorithms book. Here are some sites that our engineers found helpful when preparing for their coding interviews.

Top sites for practice problems from Meta:

- Meta Sample Interview Problems and Solutions
- InterviewBit



Other websites:

- LeetCode
- HackerRank

Video prep guides for tech interviews:

- Cracking the Facebook Coding Interview: The Approach
- Cracking the Facebook Coding Interview: Problem Walk-through

The password is "FB_IPS". Portions of the videos that cover soft skills tips may be more relevant for preparing for your onsite interview than for preparing for your initial tech screen.

Example tech screen study list:

See page 5 for an example list of exercises from Meta's engineering team you
can use as a starting point to help you prepare. Feel free to tailor it to your
specific practice needs.

*It's not necessary to review these resources when preparing for your initial tech screen, but engineers recommend them to understand the entire technical interview process.

How to Approach Coding Problems During Your Interview

1. Before you code

- Ask clarifying questions. Talk through the problem and ask follow-up questions to make sure you understand the exact problem you're trying to solve before you jump into building the solution.
- Let us know if you've seen the problem previously. That will help us understand your context.
- **Present multiple potential solutions, if possible.** Talk through which solution you're choosing and why.

2. While you code

- **Don't forget to talk!** While your tech screen will focus heavily on coding, the engineer you're interviewing with will also be evaluating your thought process. Explaining your decisions and actions as you go will help the interviewer understand your choices.
- **Be flexible.** Some problems have elegant solutions, and some must be brute forced. If you get stuck, just describe your best approach and ask the interviewer if you should go that route. It's much better to have non-optimal but working code than just an idea with nothing written down.
- Iterate rather than immediately trying to jump to the clever solution. If you can't explain your concept clearly in five minutes, it's probably too complex.



Consider (and be prepared to talk about):

- Different algorithms and algorithmic techniques, such as sorting, divide-and-conquer, recursion, etc.
- Data structures, particularly those used most often (array, stack/queue, hashset/hashmap/hashtable/dictionary, tree/binary tree, heap, graph, etc.)
- O memory constraints on the complexity of the algorithm you're writing and its running time as expressed by big-O notation.

Generally, avoid solutions with lots of edge cases or huge if/else if/else blocks, in most cases. Deciding between iteration and recursion can be an important step.

3. After you code

- Expect questions. The interviewer may tweak the problem a bit to test your knowledge and see if you can come up with another answer and/or further optimize your solution.
- Take the interviewer's hints to improve your code. If the interviewer makes a suggestion or asks a question, listen fully so you can incorporate any hints they may provide.
- Ask yourself if you would approve your solution as part of your codebase. Explain your answer to your interviewer. Make sure your solution is correct and efficient, that you've taken into account edge cases, and that it clearly reflects the ideas you're trying to express in your code.

What to Practice: An Example Tech Screen Study List

Everyone could use a refresher in at least one core area! Before your initial tech screen, brush up on CS fundamentals— especially algorithms, data structures, object-oriented design, and design patterns in general. Review foundational techniques—recursion, graph theory, tree traversal, combinatorial problems, and so on.

Looking for more detailed guidance on what to review for your tech screen? The exercises below have been helpful for many engineers preparing for a Meta tech screen and can assist you in solidifying your understanding of data structures and algorithms. Feel free to use this list as a starting point and tailor it to suit your areas of need.

1. Overview

- Each exercise could take you up to one hour.
- These solutions are written in Java, but you will be able to use your language of preference in an interview.
- Remember how to analyze how "good" your solution is: how long does it take for your solution to complete? Watch this video to get familiar with <u>Big O</u> <u>Notation</u>.



2. Exercises

Note: These exercises assume you have knowledge in coding but not necessarily knowledge of binary trees, sorting algorithms, or related concepts.

Topic 1 | Arrays & Strings

- A Very Big Sum (Warm-up, learning how to use HackerRank)
- Designer PDF Viewer
- Left Rotation

Topic 2 | Lists

- Pre-work: If you need to familiarize yourself with how lists work, watch this video.
- Exercises
 - » Insert a Node at a Position Given in a List
 - » Cycle Detection

Topic 3 | Stacks & Queues

- Pre-work: If you need a refresher, take a look at this video.
- Exercises
 - » Balanced Brackets
 - » Queue Using Two Stacks

Topic 4 | Hash & Maps

- Pre-work: If you need a refresher, take a look at this video
- Exercises
 - » Ice Cream Parlor
 - » <u>Colorful Number</u> (This one might be challenging. Remember, if you get stuck, refer to our proposed solution.)

Topic 5 | Sorting Algorithms

- Pre-work: If you need a refresher take a look at these videos: Merge Sort
- Exercises
 - » Insertion Sort part 2
 - » Quicksort part 2

Topic 6 | Trees

- Theory: If you need a refresher, take a look at this video
- Exercises
 - » Binary Tree Insertion
 - » Height of a Binary Tree
 - » QHeap1



Topic 7 | Graphs (BFS & DFS)

- Theory: Watch this video to understand what a graph is and how to traverse it
- Exercises
 - » Breadth First Search
 - » Snakes and Ladders

Topic 8 | Recursion

- Theory: Watch this video to review concepts on recursion
- Exercises
- Fibonacci Numbers

Solutions: All solutions are available in this public repository: https://github.com/lolapriego/coursework

Appendix / Resources

Links to exercises, information and guides to help you prepare Here are some resources to learn more about Meta.

Meta

- About Meta website
- Meta News website
- Meta Careers website
- Meta Life website
- Meta Diversity website

Thank you for taking the time to review this guide!

