Production Engineering

# Technical Screen Interview Guide

What You'll Find in This Guide

Welcome to your preparation guide for your interview at Meta! Our Production Engineering leaders and recruiters put together this guide so you know what to expect and how to prepare. We recognize that interviewing can be stressful, so we hope this guide provides the information and resources you need. Remember, your recruiter is there to support you, so please reach out to them with any questions.

## Accommodations Process

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.

## Team Introduction

Production Engineering was created at Meta to work with engineering teams and partners to champion the Reliability, Scalability, Performance, and Security posture of production services. PE's are hybrid software and systems engineers; they are the glue holding things together, whether that's infrastructure and software or teams and processes.

## Interview Process Overview

This guide will explain what to expect during your interviews with Meta. As part of your interview, you will have the opportunity to meet with peers, cross-functional partners, and other leaders at Meta. Your recruiter will be your guide throughout the process and aim to adequately prepare you to bring your best self to your interview.

### What will your interview process be?

Your interview process will include 2 technical screens, both separate 45-minute interviews; each interview will leave a few minutes at the end for your questions.

### Interview best practices

- Make sure you're in a quiet environment.
- Double check that you have a reliable internet/phone connection.
- It's okay to ask the person you're speaking with to speak slowly if you can't catch what they're saying.
- You'll need a laptop with a webcam, speaker, and mic. We recommend using a headset or headphones with a mic for better quality audio, but this is optional.

### Interview Dress Code

As you’re probably aware, we promote a casual environment at Meta so that everyone can be their authentic selves. Formal dress is not required (jeans are definitely ok!). Dress comfortably. We care about what you can do, not what you wear.

## Coding Interview

### What can you expect?

This interview will assess the coding skills you'll use every day as a Production Engineer, including text manipulation, handling input/output, automating tasks, interfacing with external systems/processes, etc. The questions can be a real problem, or something contrived to use these skills.

Be prepared to show your work via a shared coding workspace and be as concise and efficient as possible with your answers. It may also help to study your strongest coding language, algorithms, design patterns, core CS concepts and topics related to the scale of our environment before the interview. Structure, language familiarity, bugs, correctness and efficiency will be the criteria as to how the interviewer will assess your abilities.

### What do we look for?

One important piece of advice for your interviews: it's ok if you don't know! No one who works at Meta is an expert in all things, and we don't look for perfection in the people we interview. If you aren't sure of something during your interview, you're encouraged to ask clarifying questions and be upfront if there are topics that you have less experience with. Your interviewer will be thinking about how your skills and experience might help Meta as well as how you tackle problems you're not as familiar with.

Your primary goal in the interview is to obtain a working solution to each problem in a reasonable amount of time. We don't expect you to come up with the most optimized solution on the first attempt. It's okay to first take a naive approach and optimize it later.

### Language Selection

As there are many different programming languages used at Meta to solve infrastructure challenges, we don't have a preference for the programming languages you use during the interview. Whichever language you choose, be sure you're familiar with the built-in libraries and functions in that language.

### Interview Structure

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- Interview duration: 45 minutes total (Introduction → Coding → Q&A).
- Main tool: CoderPad (shared coding workplace) - no execution function.

## How to prep

Interviewers can only assess your skills and abilities based on what you show them during your interview, so it’s important to plan and prepare to best showcase your strengths. As you begin preparing, please reference your Career Profile for additional role-specific prep materials, if available.

- The best way to prepare for coding interviews is to practice under similar circumstances by yourself or with a friend, using sample questions. A coding interview is an unnatural event, even if you are used to coding regularly for your job. The problems are different, the environment is different, and you are under time pressure. Utilize various platforms such as LeetCode, Codewars, HackerRank, InterviewBit, etc.
- Choose at least one language and know the basics well. It is better to know one language well than multiple languages poorly. This includes creating classes and methods, conditional constructs, loops, built-in data structures, input / output, and interfacing with external processes / systems. Be prepared to use this language to solve any type of problem you may get.

## Additional Tips

In addition to reviewing the above information, these tips may be helpful as you prepare:

- Take some time after hearing the problem to ask clarifying questions and plan out your solution, rather than jumping right into its implementation.

- Defensive coding is important, but don't focus on details (such as error handling and corner cases) to the detriment of the overall solution. If you're not sure if a given error handling or edge case is important, ask the interviewer

- Don’t get hung up on syntax. If you can’t remember the order or arguments to a function or its name, just say so, leave a placeholder and move on.

- While you don’t need to provide a play-by-play of your thought process throughout the interview, it’s best to let the interviewer know why you are making certain decisions. This will also help with any course corrections that may be needed while you are solving the problem.

- Take hints from the interviewer and be open to other solutions as you go. It's totally fine to present a rough solution in the beginning and iterate as you go along.

- Avoid Guessing. It’s a lot better to say, “I don’t know” versus guessing and getting it wrong.

- Use whatever language you think will be best for you to solve the problem. Don't use a language you’re unfamiliar with just because it's trendy or you think it will please the interviewer.

- Don’t be afraid to change your mind. If you think you’ve started your solution in the wrong way, or even in the wrong language, it’s OK to admit it and change direction

## Reference Materials

### Coding Exercises

- https://leetcode.com/
- https://www.interviewbit.com/facebook-interview-questions/
- http://www.careercup.com/page
- http://www.glassdoor.com/Interview/Facebook-Interview-Questions-E40772.htm

### Books

- Cracking the Code Interview
- The Pragmatic Programmer

### Videos

- Cracking the Facebook Coding Interview: The Approach
- Cracking the Facebook Coding Interview: Problem Walkthrough

## Troubleshooting Interview

### What can you expect?

This interview will take the form of a "story", in which you will be provided a high level configuration to explore before providing a new issue that has come with the system for you to resolve, applying your practical experience and learning from your exploration.

### What do we look for?

The goal of the interview is to understand how you reason about problems, apply your skills and knowledge to investigate production issues, and attempt to root cause and mitigate the issue at scale. These issues may be across a wide range of areas (application, server, network, etc.). Do not be discouraged if you have limited familiarity in some of these areas, as the intent is to allow the interviewer to understand your breadth of skills and experience across the stack, while also allowing you to show us the areas in which you shine.

### Interview Structure

This interview will be 45 minutes in length. Most commonly, the format of this interview is verbal/ conversational-style. However, we do provide CoderPad.Io for this meeting, as it may be used to help share relevant information during the interview.

The interviewer might lay out a system related issue or problem that you are seeing in the infrastructure and ask you to troubleshoot it. The interviewer would like to see the investigative steps you would take and the reasoning behind your ideas. Use your past experiences and tooling knowledge to discover what entities are causing problems, understand why they are causing problems, and determine a scalable, preventive solution. Here is an example exchange:

Interviewer: 'You're seeing this in the infrastructure. How would you troubleshoot it?'
Interviewee: ‘What do I have access to?’
Interviewer: ‘At least ssh access to the virtual machines, but not necessarily host access’
Interviewee: 'I'd try to use the tool `foo` to see what actions our service is taking. I’d look for patterns like `bar` because often when using virtual machines, the observed issue is related to this resource.
Interviewer: 'OK, you’ve discovered what entity/resource is causing us problems, but how do we know why?

The interview might also involve having you analyze system performance issues. The interviewer may share a copy of a report and the expectation would be for you to identify what the potential issues might be, what tools you can use to confirm such assumptions, and your approach for resolving them.

Example Scenarios:

- A service you support is no longer responding to requests
- Your metrics indicate that there are sporadic issues that are impacting user experience
- An application terminates unexpectedly after a period of time for unknown reasons
- An alert fires that shows a sustained latency regression
- User reports suggest your service has an outage, but your team hasn't received any alerts
- A production host gets shut down from time to time due to out of memory (OOM)
- A small subset of users seems to get surprisingly slow responses

## Additional Tips

- We're looking for a structured and methodical approach. Narrow down potential issues systematically as you zero in on the root cause and bisect the problem space to rule out potential causes. We are looking for you to be as detailed as possible in your investigative methodology. This can be via industry standard tools/methods or any custom setup you are familiar with.
- Be prepared to talk about tools that you would use, the specific information they would provide, and the types of issues they would suggest.
- In cases where you don't know the tool to use, talk about the data you are looking for, and how you would typically query and review it.
- Don't be afraid to ask for clarification. The interviewer may purposefully be vague to see your ability to operate in ambiguity.
- There may be more than one way to mitigate the issue, so share what you consider the advantages and disadvantages to be.
- The goal of this interview is to test your depth and breadth - it's important to be clear where your expertise starts and ends.
- Depending on the scenario, you might make assumptions about some of these service dashboards or logs existing, but make sure you state those assumptions clearly.
- Review how to use and interpret tools to diagnose different levels of production issues; from application layer to the OS to the network (resource utilization, system-level error logs, etc.)
- Think about what tools or metrics might be available to debug application-level

issues (service dashboards, application logs, etc.).

- Understand classic pathological behaviors such as resource contention, thrashing, or thundering herds - and their various mitigations.
- Familiarize yourself with distributed systems concepts like CAP theorem and containerization
- Study various troubleshooting methodologies, such as the USE Method
- Consider how we may need to investigate the issue at scale, in a fleet of hundreds or thousands of servers

### Suggested Reading Material:

- Systems Performance - Chapter 4 (Observability Tools)
- Systems performance: Enterprise and the Cloud
    - Helpful Areas from this book:
        - Modern performance analysis and tuning: terminology, concepts, models, methods, and techniques
        - Understanding and monitoring application performance
    - The author's website found **here** also provides a lot of good material as well
- Linux Performance Analysis in 60 Seconds methodologies, such as the USE Method
- Consider Google SRE Book - Chapter 12 (Effective Troubleshooting)
- The Practice of Cloud System Administration - Chapter 20 (Operational Excellence)
- Debugging - 9 Indispensable Rules

## Final Tips for your Interview

- **Be yourself.** This means being open and honest about your successes and ways you've improved throughout your career. Also, be sure to call out how you have specifically added value to your team or projects you've contributed to. We value teamwork and what each individual member brings to the table.
- **Carefully review and familiarize yourself with the job description and perform research on Meta and the role.** Be prepared to answer why you are interested in this specific role and in working at Meta.
- **Please take the time to review our mission statement and core values.** These values influence how we work together to fulfill our mission of bringing the world closer together. We also encourage you to take time using our products such as Facebook, Instagram, Messenger, and WhatsApp.
- **Prepare thoughtful questions for the interviewer(s).** Your interviewer may challenge your ideas, and you should be ready to speak not only to what you recommend or have experienced but the why as well. It is important to think outside the box and to approach problems from creative and different perspectives.

## Post Interview – What to Expect

You can expect your recruiter to provide a specific timeline or updates along the way. Your recruiter will inform you of next steps after your interview as soon as they are available. Feel free to follow up with them if you have not heard within a week of your interviews. Unfortunately, due to our policies, we will not be able to share specific feedback from your interviews, but we will be as transparent as we can be regarding the process of next steps and what to expect.

## Appendix / Resources

Below is a curated list of resources to get started and help you prepare.

### Connect with Meta Employees

- Request a Mock Coding Interview with a Meta Engineer. If your technical screen is at least 10 days away, and you feel like you need extra support with coding, you're able to request a 1:1 practice interview with a Meta Engineer through your Career Profile. Unfortunately, mock interviews for our other interview formats are not available at this time.
- Once you've made it to the onsite interview stage, request to interact with an employee and learn what it's like to work at Meta through the Meta Connections Program.

### Meta Resources

- About Meta website
- Meta Newsroom website
- Meta Life website
- Meta Diversity website
- Meta Employee Benefits website
- Interviewing at Meta: The keys to success blog

At any time during the interview process, you can track your progress, send thank-you notes and update your personal information all via the Career Profile. If you do not receive a link from recruiting, you may create one.

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**Thank you for taking the time to review this guide!**