Data Engineering

Full Loop Interview Guide

Meta

What You'll Find in This Guide

Welcome to your preparation guide for your interview at Meta! This guide will take you approximately 15 minutes to review. Use the sidebar to quickly jump to the section you are looking for. Whether you're taking your initial screen or your full loop interview, our Data 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

Meta is committed to providing reasonable support (called accommodations) in our recruiting processes for qualified candidates with disabilities, physical conditions, mental health conditions, neurodivergence, sincerely held religious beliefs, pregnancy, childbirth, or related medical conditions, as required by law. If you need assistance or require an accommodation, reach out via the Accommodations request form.

Team Introduction

At Meta, data engineering plays a critical role in our product development strategy. Meta is incredibly data-driven, and every feature, launch decision, and product opportunity is tested and proven with data.

Data engineers play a critical role in this effort by embedding within cross- functional teams where they partner closely with other

functions like product managers, software engineers, designers, researchers, data scientists, etc. Working together, these cross-functional teams are collectively responsible for building products and services to serve billions of people around the world.

As a function, data engineering operates within the analytics organization alongside data science. This strong partnership enables us to build data assets which unlock the in-depth analysis we need to drive our products forward. Our data engineers provide all the data; data scientists use that data to explain why things are happening. Analytics eventually rolls up into general management of the product.

Data engineers at Meta need to have keen product awareness and the ability to hold a strategic conversation about the product, its possibilities, and its future. They need to be capable of anticipating future needs and designing data systems today to reduce the time and complexity involved in meeting those needs tomorrow. Successful data engineering produces better decisions, and subsequently, better outcomes for Meta.

By nature, data engineers are going to receive many requests. As a result, prioritization is a critical skill requirement. Data engineers work in a partnership model and not as a service. As such, they need to strike the right balance between supporting the day-to-day needs of the product team and working on big bets. Meta's culture prioritizes autonomy; independent decision-making is an essential factor in achieving success.

Technically speaking, the day-to-day job of a data engineer includes a wide variety of focus areas. Data engineers are responsible for high-quality logging, either through direct implementation or through a strong instrumentation partnership with software engineering. They are also responsible for complex integration work, bridging data from various sources together, enriching it, and operationalizing it via core tables, aggregate tables for convenient access, and dashboards for consumption. Data engineers also make data sets available for experimentation systems (A/B testing frameworks), training machine learning models, and sometimes delivering data directly back into Meta's products.

On the Data Engineering team, there are no project managers, business analysts, ETL engineers, or visualization developers. Instead, there are solely data engineers who take on those roles and work end-to-end across the stack. But that isn't to say we don't specialize. We have a variety of archetypes that allow for deep specialization in a given area. Meta is a strengths-based company, and we always aim to align each person's unique strengths with the right team and projects. Below are some videos and bios of key members from the Data Engineering team. These will help give you a better sense of what drives the data engineers within Meta Analytics.

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?

- **Three Technical Interviews**: 1 hour each
- **Ownership Interview:** 30 minutes

Video Conference 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.

Technical Interviews

How to prepare for your technical interviews

The three technical interviews collectively will assess your skills for product sense, analysis, data modeling, SQL, ETL, and coding. You'll be using our virtual whiteboard interface **coderpad** to communicate ideas, write actual SQL and code, draw schemas, and visualize data and process flow.

Product Sense / Analysis Prep

At Meta, we expect data engineers to have not only a strong technical aptitude but also a keen product sense. All three technical interviews will be case studies of typical product challenges that we solve with data. Your interviewer will assess your ability to think critically about the needs of the product in each scenario and how you translate those needs into a robust technical solution. One way you can practice this is to think about metrics that companies similar to Meta might use.

For example, you can look at their financial statements to see what metrics they deem strategically important. From there, you should think through how you would calculate those metrics, and what you would do if they started moving unexpectedly.

- Meta Quarterly Results
- Meta Products
- How to Deep Dive in Your Product Funnel Performance with GA and Data Studio
- Most Important Product Metrics
- How Would You Measure the Success or Failure of a Product Feature?

Data Modeling Prep

You'll brainstorm the data needs of a user product. Then you'll design a data mart to support analytics use cases and write select SQL statements to produce specific results. To practice data modeling, go through the main products of several large tech companies, such as Meta, LinkedIn, or Amazon. Ask yourself, how would you model each function you use from the organization's product? Create logging designs for how you think data should be captured, then design data models to support analytical queries and reporting needs for those products. Here are some resources which might help you with prep work for data modeling:

- Data Modeling Tutorial
- Data Modeling in Big Data
- Data Model

- Data Mart
- Dimensional Modeling
- Denormalization

SQL Prep

We'll ask you to focus on basic SQL constructs. Practice all types of joins, aggregate functions, analytical functions, set operators, and subqueries. You can take the work you did in data modeling, and practice how you'd load and transform the data from the logging sources into your target tables using SQL. During this exercise, also think through how you might help improve efficiency and scalability for processing large data volumes. Use the links below to practice:

- SQL Tutorial
- PostgreSQL Exercises
- Netflix Case Study
- Insight on Data Swarm, Meta's Custom ETL Tool

Coding Prep

Make sure that you know all the data structures and how to manipulate them well. Familiarize yourself with string, sets operations, etc., in your programming language of choice, and make sure you understand how dictionaries, lists, and loops work.

- Python Guide

Ownership Prep

What can you expect?

Data engineers need to take initiative and influence their fellow data engineers and XFN partners in their role, so we'll ask questions about your past experiences where you've been able to demonstrate this. The videos below will help give you a better sense of what drives the data engineers within Meta Analytics.

- An Inside Look at Data Engineering
- Fireside Chat with a Data Engineering Director

Final Tips for your Interview

- **Listen for Hints**

  Interviewers might ask questions such as, “Are you sure you want to use a loop there?” This gives you an opportunity to consider alternatives to how to solve the problem and to demonstrate that you can learn quickly on the spot and implement feedback.

- **Think out loud.**

  It helps your interviewer follow along and learn about your problem-solving skills. They’ll want to understand why you’re making certain decisions. (For example: Why subqueries instead of joins?)

- **Ask clarifying questions.**

  Make sure you’re asking clarifying questions as you go along (there won’t be tricks but you’ll need to ensure you have all the information you need). For instance, be comfortable asking, “Would you like me to keep going?"

- **Speed and efficiency.**

  Speed and efficiency are important. Think more about breadth over depth because it’s important for the interviewer to get a signal on all your skillsets, not just one deep signal on one subject.

- **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.

Additional Resources

Meta Resources

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

Update personal information, track interview progress, and send thank you notes.

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.

Thank you for taking the time to review this guide!