BigData Interview

Interview Preparation Tips

Self-Introduction

Be ready to confidently introduce yourself. Focus on your strengths, key achievements, and the skills you have already learned. Take a moment to reflect on how you see your future professional growth — interviewers appreciate candidates who have a clear vision and motivation.

Previous Experience and Project Description

Be prepared to discuss your previous experience and projects. If you don't have commercial experience yet, that's completely fine — talk about what you've learned, personal projects, coursework, or any practice assignments you've completed. Showing initiative and the ability to apply your knowledge is just as important as real-world experience.

Technical Part Tips

Don't be afraid to suggest ideas or make reasonable assumptions if you're unsure of the exact answer. Interviewers value problem-solving skills and your thought process just as much as technical knowledge.

If there's something you studied and the interviewer hasn't asked about it, feel free to mention it. Demonstrating your preparation and eagerness is always a plus.

Remember: it's okay if you can't answer every question. Final decisions are based not only on technical skills but also on problem-solving ability, communication, and overall potential.

Questions for the Interviewer

Prepare a few thoughtful questions for the interviewer ahead of time. Asking questions shows your genuine interest in the role. It also helps you better understand whether the opportunity aligns with your career goals.

Intern Technical Preparation Guide

This guide lists the key technical topics interns should learn to prepare for interviews. Focus on understanding the basics and practicing your skills.

Topics:

- Algorithms and Data Structures
- SQL
- Python
- Data Engineering
- Misc

Algorithms and Data Structures

- Time and Space Complexity (Big O notation)
- Stacks and Queues
- Arrays and Linked Lists
- Hash Tables
- Trees
- Graphs

Useful Links:

- Big O Cheat Sheet
- CS50 - Harvard: Data Structures

SQL

- Selecting Queries
- Join Types
- Views and Materialized views
- Window Functions
- Procedures, Triggers, and Functions
- CTE and Recursive CTE

- Transactions and ACID Principles
- Indexes
- Query Optimizations
- NoSQL Concepts and CAP Theorem

Python

- Data Structures
- Modules, and Packages
- Decorators
- Iterators
- Generators
- Functional Programming
- Object-Oriented Programming (OOP) and SOLID Principles
- Type Hints (type annotations)
- GIL (Global Interpreter Lock) and Threading
- Multiprocessing Basics

Data Engineering

- ETL / ELT Concepts
- OLAP vs OLTP
- Normalization and Denormalization
- Third Normal Form (3NF)
- Star Schema and Snowflake Schema
- MapReduce and Massively Parallel Processing (MPP)
- Data Warehousing (DWH), Inmon vs Kimball Methodologies
- Data Lakes
- Lakehouse Architecture
- Data Replication
- Sharding
- Partitioning

Misc

- Git (clone, branch, commit, pull requests)
- Testing (unit tests, integration tests basics)

- Docker (containers, images, basic docker-compose)