



Interview tips: How to land your next tech job

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EIGHT WAYS TO BE LESS NERVOUS ABOUT YOUR NEXT JOB INTERVIEW

BY MARY SHACKLETT

Job interviews can be nerve-wracking for both interviewees and interviewers. Because you're naturally nervous, you may not be on top of your game as much as you'd be in more relaxed circumstances, but there are steps that you can take to control this nervousness and perform better when you are interviewing for a job. Here are eight tips.

1. DON'T JUST RESEARCH THE COMPANY—HAVE A CLEAR FOCUS ON HOW YOU CAN CONTRIBUTE

A number of years ago, a friend of mine who was debating whether to interview for a large corporation thought again after she learned that the company was going through a massive layoff and reorganization. However, in researching the company's longevity and consistently strong performance, and in understanding that the company was in the midst of strengthening its legal and compliance staff, she decided to interview. She got a job in legal/compliance—and is now a major executive with the company 10 years later. "Despite the layoffs during the time I interviewed, I knew they were looking for exactly the skills I could bring," she said. "And I knew that I could make a difference."

2. BE POSITIVE AND OPEN

Smile and be prepared to extend your hand in a handshake when you enter the room to meet your interviewer. Your handshake should meet the tension level of the hand that is extended to you. If you grasp too firmly, you could be perceived as being overbearing. If your handshake is too weak, you could be perceived as being indecisive and [passive](#). The best approach is a medium strength handshake. In addition, by presenting yourself as a positive person and maintaining good eye contact with your interviewer throughout the interview, you are more likely to be perceived as a positive and open individual. Most organizations want this type of employee.

3. BE PREPARED TO TALK ABOUT A FAILURE

Yep, you should definitely expect the "failure" question. Interviewers know that job applicants are going to come prepared to talk about all the wonderful things they have done—so they always ask a question that can get at the flip side, since none of us succeeds at what we do all of the time.

Your failure story should be about a specific incident, assignment, or project you worked or managed. It could even be about a difficult work relationship that you experienced with someone.

Tell the story in three stages. First, describe the situation and what happened. Second, explain what wasn't working and why you felt you were failing. Third, explain how you tackled the situation and overcame it. If you didn't overcome all the adversity of the situation, be prepared to tell the interviewer how you grew from the experience and what you learned.

4. BE AN ACTIVE LISTENER

The University of Colorado at Boulder defines active listening as “a way of listening and responding to another person that improves mutual understanding. Often when people talk to each other, they don't listen attentively. They are often distracted, half listening, half thinking about [something else](#).”

This active listening goes beyond speaking. Active listening can also involve watching the eye contact and body language of your interviewer for clues of ease, unease, etc.

The more you can create a true sense of “conversation” and relaxation in the interview, the better you'll perform.

This is easier said than done.

Many interviewees, because they are naturally a little nervous during the interview, can get carried away talking about themselves. Meanwhile, they begin to lose the interest of their interviewers. Don't let this happen to you. Answer questions completely but as succinctly as possible. Leave room for your interviewer to participate.

5. HAVE YOUR PERSONAL USE CASES READY

The company you are interviewing with hopes to find a candidate who is ideally suited for the job it wants to fill. One of the ways this can be determined is by asking you whether you've done the job they're looking to fill, and whether you can review some of the specific situations or projects you've worked on. This enables the company to see just how familiar you are with the mechanics and the decisions of the job they want to fill.

So if you're a project manager who is interviewing for a management job, be prepared to talk about one or two projects you managed, their outcomes, and the various challenges you encountered and how you solved them. Be specific, but don't use a lot of technical jargon unless you are interviewing with a fellow techie who can follow everything you say. The closer your own personal use cases align with the job you're interviewing for, the better your odds that you will get an offer.

6. DRESS APPROPRIATELY

I've been in technology companies where you're considered a rare and endangered species if you arrive in a dress and heels or in a suit and tie. The expectation in these places is that you come as "business casual." On the flip side, more conservative companies like banks and insurers still expect an interviewee to show up in business attire. As you do your company research, see what you can find out about the company's culture and dress [norms](#). The goal is to come appropriately dressed for your interview, whatever the standard of dress happens to be.

7. HAVE YOUR OWN QUESTIONS READY

At the end of almost every job interview, an applicant almost always gets asked, "Do you have any questions for me?"

It is important to have two or three questions ready.

When the company is interviewing you, you are also interviewing the company. When you have several questions ready and you ask them, this shows the company that you have been giving some serious thought to it. Conversely, if you just end the interview with, "No, I don't have any questions," it could be interpreted as a less-than-enthusiastic interest on your part—and it could work against your getting the job.

Good questions to ask are:

- Do you have an internal training and career development program?
- I see the company is localizing its software in French, German, and Spanish. Will you be opening offices in those countries? (This would be based upon research/information you might have learned).
- How much travel is involved in the job opening I am interviewing for?
- Is this a brand new position or are you replacing someone?

8. ALWAYS BE YOURSELF

If you try to be an extrovert with a dominating personality but you really aren't—or if you try to show yourself as highly analytical and cerebral, but you really aren't—it's not going to work. We can only be who we are. And while employers seek certain types of skills and individuals for the jobs they have open, they also value authenticity.

Companies really want two things: someone whose skill set fits their needs and someone who fits. As an interviewee, you should expect the same: a place that can use your skills and a corporate culture that feels comfortable and welcoming.

JOB INTERVIEW NEWBIES: AVOID THESE 10 MISTAKES

BY JACK WALLEN

You've just graduated from college and are about to undertake your first round of interviews for what you hope will be a lifetime career in IT. You know what you're doing. You've got the grades, the skills, and the knowledge to prove it. But did school prepare you for those interviews? Did they give you enough advice to send you into a meeting room with prospective bosses with the confidence and interview savvy to get the job?

If not, let me help to assuage your fears and calm those jangling nerves by telling you what rookie mistakes to avoid. If you follow these bits of advice, you'll be one step ahead of the horde of candidates gathering at the doors of that same meeting room. Here are 10 missteps to avoid.

1: COMING UNPREPARED

This may sound like a no-brainer, but I'm always surprised at the horror stories I hear of interview candidates showing up completely unprepared—without researching the company, dressed in jeans, having had no sleep the night before, not showered, you name it. If you walk in knowing nothing about the company you are interviewing for, you're sunk. If you're not dressed professionally, you're doomed before you take a seat. If you want to undermine the opportunity, stay up all night before the interview playing Halo. Don't think the bags under your eyes will serve as a badge of honor.

2: FORGETTING YOUR RESUME AND LETTERS OF RECOMMENDATION

Yes, you probably already submitted a copy of your CV, which includes your letters of recommendation as well as all earned certificates and such. But what happens when you walk into an interview room to an entire panel of interviewers who want to take a gander at those documents and the only copy is in the hands of the CEO? What's worse, what happens if the CEO left your resume in at home? If you have your portfolio with you, you're safe—hand it over and everyone can peruse the incredible details that help make up “you.” On top of that, you show that you know the ropes and are, to borrow a motto, always prepared.

3: TALKING AS IF THE ENGLISH LANGUAGE IS YOURS TO DESTROY

On any given day, I hear the back and forth between Millennials and sometimes I'm amazed that they know what each other is saying. I get it—every generation abuses the language in different ways. But to come into an interview using your generation's slang and phrases with a group of interviewers who may be old enough to be your parents is a mistake. They may understand you (from years of practice with their own kids). But you don't want to further remind them of your youth or that you are the same age as their children.

4: NOT PRACTICING YOUR ANSWERS

During the interview, you will be asked some obvious questions and some not-so-obvious questions. Interviewers want to see how well you can think on your feet, how well you react to stress, how well you communicate ideas. If you come in without having practiced fielding some challenging (and even not so challenging) questions, you will fall on your face. This is easy to prepare for. Get a friend or two, have them come up with a list of questions, sit in a room, and have them toss everything at you but the kitchen sink. Once you've gone through a round or two like that, you'll be ready when the CEO asks, "Are you more of a hunter or a gatherer?"

5: SHOWING YOUR DESPERATION

Interviewers are like dogs: They can smell fear and desperation. If you walk into that interview desperate for the job, it'll show. You need to muster all the confidence you can. Walk into the interview as if you don't need the job but more that the job needs you. However, do not walk into the interview overly confident. There's already an abundance of cocky IT pros out there—and for many that's a major turnoff. Just know you are right for the job and it would be a win-win if the company hired you.

6: BEING NEGATIVE

Negativity can manifest itself in many ways. For instance, say your interviewer asks about your experience in school. Instead of discussing all the positive things you took out of those four years in college, you focus on one particularly bad thing—maybe a class that nearly caused you to quit. Don't drop those pessimism bombs in the meeting room. Stay positive during every twist and turn of the interview. If those hosting the interview see you spinning everything with a positive light, your chances of being hired greatly improve.

7: LEAVING YOUR CELL PHONE ON

Your phone may be your lifeline to the universe. It may contain every secret humankind desires to fully understand. Doesn't matter. Turn it off. The last thing you need is for that smartphone to be blowing up on the table with

encouraging or distracting messages. “Dude, nail that interview!” “OMG Shelly just got busted doing the walk of shame!” “Boost your post to reach more likes.” If you need to have your phone on (for instance, if your wife might go into labor), inform those interviewing you of the situation before the interview starts.

8: NOT ASKING QUESTIONS

The interviewers will, at some point, give you the opportunity to ask questions. You should have questions and you should get them answered. “Are there opportunities to rise in the ranks? What’s the benefit package like? What is your policy on...” You get the idea. When you ask questions of them, they know you mean business. And those interviewers expect questions. In some cases, they hope for questions because it means you have done your research on the world of business and you are serious about your career.

9: BRINGING REINFORCEMENTS

Don’t take your parents, siblings, BFF, boyfriend/girlfriend along with you. Nothing says “I need my hand held” like dragging along moral support. Stand alone and stand proud as you enter that building. If having someone along is a necessity, leave those folks in the car or have them wait at a nearby coffee shop. Just don’t bring them in—not even into the company waiting room. The second those interviewers (or the receptionist) sees your support group along for the ride, they’ll assume you actually need that support group. Don’t be that person.

10: FORGETTING TO PAY FOR PARKING

If you’re in the middle of your interview and you remember that your meter is about to run out, you’re sunk. Most likely those holding the interview are busy and aren’t going to be able to wait for you to run back to the meter and pump it full of quarters. If you have to park at a meter, make sure you pay for double the time you think you’ll need. Even better, drop the cash to pay for a parking garage where time won’t run out. Things happen. The interview before yours may run long and you’re already in the hole on that meter—even before you start.

AS YOU HEAD OUT INTO THE JOB MARKET...

You may have laughed at some of these points. You may have thought to yourself, “I’d never do that!” If that’s the case, I applaud you. But many candidates are coming out of college with no idea how to prepare for an interview. If you avoid these mistakes, and you couple that with a solid resume and understanding of technology, you’re sure to nail that interview.

Best of luck!

EIGHT TIPS FOR ANSWERING TOUGH INTERVIEW QUESTIONS

BY ALISON DENISCO RAYOME

The days of tech job interviews consisting only of questions such as “Tell us about yourself” may be declining. Several companies have adopted Google’s brain teasing interview model, throwing interviewees questions such as “How many happy birthday posts do you think Facebook gets in one day?” and “If you are in a boat with a boulder and you drop that boulder into the lake, how does the water level before and after you drop the boulder in the lake compare?”

Those are both real questions, by the way, asked recently by Facebook and Apple, respectively, according to [a Glassdoor report last year](#).

Google itself abandoned these types of questions several years ago, and executives [later admitted](#) that even they could not solve them. However, several tech and other companies continue to use them as part of the interview process.

“A lot of these questions are designed to see how somebody thinks and analyzes,” said Mark Dinan, a tech recruiter based in Silicon Valley. “But sometimes, they’re just ego-driven, and they’re attempts by a 24-year-old questioner to demonstrate how smart they are, as opposed to finding out about what a candidate knows.”

The tech interview process is flawed on both the interviewer and interviewee side, Dinan said. “Many people in the tech world do not interview well, and a lot of companies don’t know how to interview,” he said. “They adopted patterns of behavior from Google and Facebook, which doesn’t work for a startup that’s desperate to find people. A lot of times, companies need to redo the interview process because they end up discarding qualified people.”

Dinan said he has seen his clients walk out of interviews after being asked a curveball question. “It’s one thing if you’re interviewing at Facebook and they ask that, but if you’re interviewing at a company you might not be that excited about, that’s when you see people leave,” Dinan said.

Curveball questions are especially difficult for more introverted job candidates, said Caroline Stokes, executive coach and headhunter, and founder of executive search firm [Forward Human Capital Solutions](#). “People may not feel comfortable in that environment and freeze up,” Stokes said. “I would encourage companies to have other testing environments as well as those curveball questions.”

Asking questions that get people to explain how they have tackled particular problems in the past are better than brainteasers for interviews, said Dave Denaro, vice president at [Keystone Associates](#), which provides career coaching to executives. “You can probe for details to confirm the individual is being truthful,” Denaro said. “Asking how have you handled this problem before is better than asking how would you handle it, assuming the candidate has had at least some work experience.”

Interviewers should try to get to the heart of the following questions, Denaro said:

- Can the candidate deliver what needs to be done in the job?
- Are they motivated to do it in this particular company?
- Do they fit the company culture and management style?

“Not every candidate is enough of a match in all three areas to warrant getting an offer, nor should a candidate accept a job offer if they think there is not enough of a match in all three areas,” Denaro said.

Here are some tips for handling brain teaser interview questions.

1. DO YOUR RESEARCH

Oftentimes, tech companies use the same type of brainteaser questions, so candidates can prepare for them ahead of time, Dinan said. Several brain teasers fall into [similar categories](#), such as the “How Many [Things] Are There in [Location]?” question and the “How Many [Things] Could Fit in [Container]?” question.

You can also prepare to connect your response to any question to what the company is looking for in an employee, Stokes said.

2. BUY SOME TIME

Once an interviewer throws you a difficult question, you can buy some time with filler statements, such as, “That’s really interesting, I’ve never thought about it before,” said Jen Teague, a small business staffing and onboarding coach. You can also ask to have a few minutes to fully evaluate the question.

You can try to use humor to diffuse the tension of the situation as well, Teague said. “I’m a fan of humor, though the industry is not very humorous,” she said. “Usually, I try to tell candidates when they are nervous to make light of it.”

3. CLARIFY THE QUESTION

Listen closely to the question and clarify the scenario before committing to a path to find an answer, Stokes said. “Clarification is one of the key points that needs to be made if you receive a curveball question, so there is understanding on both sides.”

If you find you can reach an answer from a number of angles, explain that to the interviewer and describe each path, Stokes said.

4. DON'T WORRY ABOUT FINDING THE RIGHT ANSWER

"At heart, these are thinking-style questions," Denaro said. "Often the interviewer is not looking for the absolute right answer, but rather how you think through the problem."

In fact, these questions don't always have a right or wrong answer. "You're not going to know how many jelly beans can fill the White House, Teague said. "They want to understand the way you think and why your answer is the way it is. Giving any answer is the best way to go about it."

5. SHOW OFF YOUR COMMUNICATION SKILLS

"The advice I give to handle this type of question is to verbalize your thought process as you answer the question," Denaro said. "In other words, say out loud the steps you are going through in your brain. If their thinking style matches your thinking style, they will like your answer."

No matter the question, being able to demonstrate soft skills such as active listening is crucial during an interview. "Communication is really essential when interviewing, even when it comes to these kinds of off-the-wall questions," Teague said. "Being able to talk it out and explain it in a rational manner is what's going to get you the position."

6. USE A WHITEBOARD

If available, use a whiteboard or piece of paper to outline the problem and the different potential routes to an answer.

"You're able to use that as a tool to demonstrate the verbal, oral, and written problem solving," Stokes said.

7. ASK FOR FEEDBACK

To determine whether your thinking styles matches that of the company, Denaro advises asking the interviewer directly, "Is that how you would go about figuring this problem out?" after you've concluded your response. "Then you will know if your answer scored points or if you need to ask a clarifying question and try again," he said.

8. FOLLOW UP

If you aren't happy with the answer you came up with, it's a good idea to follow up with the interviewer later, Stokes said. "If you're still thinking about the problem and want to demonstrate to the potential future employer that you have the answer, encourage the dialogue even after the interview, to say, 'I've got another two angles to present.'"

CXO CANDIDATES: HERE'S HOW TO ANSWER SIX COMMON INTERVIEW QUESTIONS

BY MARY SHACKLETT

When hiring executives, Virgin Group founder Richard Branson looks for “personality or passion,” and AT&T Mobile and Business Solutions president and CEO Richard de la Vega looks for [integrity and capability](#).

These qualities aren't discoverable from a CXO candidate's resume, but they necessitate important “need to know” questions for CEOs who interview.

That's one reason why it's important for CXO job candidates to develop their understanding about a company as much they can before they walk through the doors for an interview. It is equally important to keep this caveat in mind: When companies go seeking CXOs, they are usually doing it because 1) they've created a new position that no one internally can or wants to take or 2) they want to replace someone they've either lost or fired.

GETTING READY FOR THE INTERVIEW

The key to preparing for a CXO interview conducted by a CEO or other senior person is to anticipate the questions and issues that are likely to arise in the interview. Here are some common examples.

1. Tell me about yourself

As a CXO candidate, I always disliked this question because of its vagueness and its open-endedness, and I promised myself that when I was a senior manager interviewing my own CXOs, I would never ask it. However, many CEOs and senior officials do ask it. One reason for asking such an open-ended question is that they want to see what comes to mind first for you when you think of yourself. Here are some recommendations if you get asked this question.

Try to answer the question with a combination of personal and professional information about yourself. I accidentally found myself in an advantageous position when I first started interviewing for CIO positions. My background had been in liberal arts and writing, so I never even thought about becoming an IT professional, let alone a CIO. However, when I graduated from college, an IT opportunity presented itself and I liked it. In my interview for CXO, I told my CEO interviewer that—and then went on to say why I liked IT, and some of the things I had

accomplished as a manager that I was proud of. This proved to be successful for me at the time, but I didn't know why. When I thought about it later, I realized what had happened: I had managed to answer the CEO's open-ended question with a nicely blended answer that combined both personal and professional information about me—and that suggested to him why I might be a strong candidate for the position.

2. Tell me about yourself, part two

A professional associate of mine once was interviewed by a newly minted CEO of an aerospace supplies company for a CXO position. The CEO started with the request “Tell me about yourself.” My colleague told me that by asking an open-ended question, she felt that her interviewer had found a way to break the ice for the interview and actually have her take the lead. This is an important element for job interviewees to remember: Your interviewer might be more nervous and ill at ease during the interview than you are. The more you can assist with relaxing the room, the better your chances at getting that CXO job.

3. Tell me about the greatest career or project challenge you've faced—and how you solved it

If you are interviewing for a CXO manager position, your interviewer wants to know not only how you solved a technology or industry impasse, but how you worked with others and provided leadership to overcome a difficult situation. When you talk about a project, be as specific in describing it and its results as you can (e.g., “We went live with the project in six months instead of in the one year we had planned. We were able to do this because...”). Don't forget, though, that your interviewer is also looking at how well you engaged and motivated your team. In other words, did everyone feel they had a role in making the project successful? How did you as a manager facilitate that?

4. How do you manage change?

The need for change is a major reason why companies hire CXOs. They want individuals who have experienced and effected successful organizational change. Knowing this, be prepared to talk about your experiences as a change agent.

Also, be ready to talk about the impact the changes had on the company and on your employees. I once had a CXO candidate who talked about change in his organization and what he told his employees. “I showed them what an outside consultant had come up with and how and why their jobs were going to change,” he said. “I let them know that these changes weren't anything personal. They were needed for the company—because they just made sense.” Before long, the employees had embraced this change, the candidate said. “All around the organization, employees were saying ‘It just makes sense.’” I thought to myself, “Maybe that was the case. But

it could also mean that while the employees were saying this because it was expected, they were also updating their resumes.” The next question I asked the CXO candidate was what his staff attrition rate looked like.

5. Where do you want to be in five years?

It is important to answer this question firmly and positively because your interviewer wants to hire a CXO who 1) knows where they are going; 2) would be similarly focused on helping the company get where it needs to go; and 3) believes in the company and its mission. No one wants to go back to their board and employees in six months because a newly hired CXO decides to leave.

6. Now, what do you want to ask me?

Most CEOs or senior interviewers at some point during the interview are going to ask you if you have some of your own questions about the company. From your previous research, you should already have several questions in mind. You might also have new questions that have come about as a result of the interview. In any case, it is important to have questions and to get them answered.

I once interviewed for a director role and was told that a VP’s wife, who was a manager in the department I’d be leading, would likely have to be let go. I knew I was getting ready to step into a hot situation so I asked the company president who was interviewing me if he was prepared to stand behind me if I had to fire this person. The president told me that he would stand with me, and he did. This was an important point for me. If he had waffled, I wouldn’t have accepted the job.

FINAL WORDS

CEOs and other senior leaders look for CXOs they can depend on, who will contribute value to the company, and who will stay around. This is what they interview for. At the same time, however, CXO job candidates need to recognize that they are interviewing the company, too. When both sides come together in a win-win agreement, everyone gains and the company employees and stakeholders benefit, as well.

10 QUESTIONS JOB SEEKERS CAN EXPECT IN A CYBERSECURITY INTERVIEW

BY ALISON DENISCO RAYOME

Hiring security professionals can be difficult, and the skills required and interview questions asked will vary greatly depending on the position and an organization's needs, said Charles Gaughf, security lead at [ISC\(2\)](#).

"Most likely the need is for a competent professional who is well versed in a variety of technology, who is driven, inquisitive and honest," he said. "That is why it is a good idea to cater your questions to ascertain these qualities. It is also a good idea to throw out some questions that make the candidate think and that you know hasn't been practiced prior to the interview."

For entry and early career roles, more technical questions should be expected, said [Forrester](#) analyst Jeff Pollard. As you move up the ranks, the questions may become more about leadership, running a program, conflict resolution, and budgeting.

Candidates can expect a phone screen with more technical, standardized questions first. "The key is to see if the candidate understands things in enough detail to proceed," Pollard said.

After an initial interview, candidates often move forward to a simulated exercise of doing the job, which may be simple or complex, depending on the role. Employers are usually looking for candidates who can explain their decision making process, rather than those who complete the task perfectly, Pollard said.

"I might hand them some log data and ask questions about the contents of the data. I might hand them a forensic capture from a system and ask them to perform light investigative work and answer details about the attacker," Pollard said. "If the person was going to be a developer I might ask them to write some code that could parse through data. If the person was going to be a penetration tester, I might hand them a basic web application and ask them to attack it."

After that point, the candidate might have a final interview to explain their solution, reasoning, and methodology.

Here are 10 questions a cybersecurity job applicant might see in a phone screen or an in-person interview, according to Gaughf, Pollard, and Shalom Berkowitz, a lead technical recruiter at [Mondo](#).

- What policies and procedures do you engineer or architect against (NIST, HIPAA, etc.)? Did you also design those policies and procedures?
- What type of anomalies would you look for to identify a compromised system?
- What is the difference between threat, vulnerability, and risk? What is more important for cybersecurity employees to think about, threats or vulnerabilities?
- Do you have a home lab? What project have you had the most fun with?
- What are some ways malware can evade detection by antivirus products?
- What is a cross-site scripting attack and how does it work?
- Outside of cross-site scripting, what are a few other examples of web application attacks?
- What is a man-in-the-middle attack and how can it be prevented?
- What is the difference between TCP and UDP? What kinds of use cases are better for UDP?
- How do you keep up with cybersecurity news?

“All security professionals must have a passion for learning,” Gaughf said. “This field, like others, requires professionals to always be up to date and to have the current lay of the land in regards to threats and our ever-changing landscape.”

10 QUESTIONS JOB SEEKERS CAN EXPECT IN A DATA SCIENTIST INTERVIEW

BY ALISON DENISCO RAYOME

Demand for data scientists [continues to grow](#), and the job market is hot for those with the right skillset. Data science job candidates can expect a variety of technical questions and exercises that depend upon the position and the company. But outside of tech know-how, adequately describing your communication, teamwork, and creative-thinking skills is key.

“To assess if a candidate can be successful as a data scientist, I’m looking for a few things: baseline knowledge of the fundamentals, a capacity to think creatively and scientifically about real-world problems, exceptional communication about highly technical topics, and constant curiosity,” said Kevin Safford, senior director of engineering at [Umbel](#).

Demonstrating that you have a strong understanding of the business at hand and how data can be used to reach business goals will also set you apart.

“In addition to many technical questions—knowing your algorithms, knowing your math—a great data scientist must know the business and be able to bring strong ideas to the table,” said Rick Saporta, head of data science at [Vydia](#). “When hiring, I would rather have one creative data scientist who has a strong understanding of our business than a whole team of machine learning experts who will be in a constant ‘R&D’ mode.”

Here are 10 questions and requests you might encounter during an interview for a data scientist job, from several people currently working in the field:

- Describe a personal or professional project in detail.
- Tell me about a time you had to work with someone who is not data-savvy on a data science project.
- Tell me about a time you had to work with very messy data.
- Tell me about the most complicated data project you have worked on and what you were able to do to achieve success.
- What are your favorite data science tools and techniques?
- How do you generate results when you don’t have enough data or your data is corrupt?

- Tell me where you think data science is heading—both in the short term and in the long term.
- Can you outline your process for diving into data and sharing findings with the broader team?
- What is the biggest dataset you have built models on?
- Tell me about the most unique insight derived from a dataset you compiled.

These questions were contributed by:

- Kevin Safford, senior director of engineering, [Umbel](#)
- Kjell Carlsson, analyst, [Forrester](#)
- Daniel Miller, vice president of recruiting, [Empowered Staffing](#)
- Niranjan Krishnan, head of data science and innovation, [Tiger Analytics](#)
- Chad Stoecker, leader of managed services, [GE Digital](#)
- Rolf Olsen, chief data officer, [Mindshare](#)

EIGHT SKILLS PROGRAMMERS SHOULD ACQUIRE BEFORE A TECHNICAL INTERVIEW

BY ALISON DENISCO RAYOME

Technical interviews require programmers to demonstrate a number of skills to land a lucrative job—but luckily, most can be practiced and honed over time.

“The skills needed are going to vary wildly based on the type of role, industry, and the company you’re interviewing with,” said Ashish Datta, managing partner at [Setfive Consulting](#). “At the bare minimum I would recommend having a working understanding of data structures and common algorithms. Along with that, I’d recommend being as comfortable as possible in at least one major programming language.”

To master a technical interview, programmers should demonstrate the following eight skills.

1. SOFT SKILLS

When it comes to technical skills, you either meet them or you don’t—and if you do, you won’t be the only one, said Mike Walsh, founder of [StraightPath Solutions](#). In that case, “Bring your A game with soft skills,” he said. “These little things can be the differentiator along evenly qualified candidates so much more than certifications. Things like how you handle conflict and if you are too proud to say ‘I don’t know.’ Do not lose your soft skills.”

With the pervasiveness of Agile development methodologies, programmers must show that they can integrate into mixed-skilled development teams, said Ed Szofer, chief executive officer and president at [SenecaGlobal](#). “To be a productive member of these types of teams, programmers must be able to communicate clearly, report progress accurately, raise issues promptly, and generally be a good team player,” he said. “In today’s ultra-competitive environment, a programmer’s soft-skills are now almost as important as the hard skills.”

2. PROBLEM-SOLVING ABILITIES

The ability to demonstrate problem-solving skills is often more important than proving technical expertise in other areas, said Mark Wilcox, vice president of business development at [ICSynergy](#).

“What I look for is how does a programmer think about solving a problem. And then I look for action they are taking in learning how to improve their skills,” he said. “I don’t care as much if they are an expert in a specific language because any competent programmer can learn a new language in a week. But if they don’t have good problem-solving skills and are not constantly trying to improve, they will end up hurting your project.”

Especially for junior developer positions, “They really don’t care about what you think you know,” said Todd Millecam, CEO and principal consultant of [SWYM Systems](#). “Focus on how quickly you can learn and how willing you are to learn.”

While the technical questions asked will vary by position, all programmers must know how to communicate their thoughts, ideas, and experience with the interviewer, said Neel Somani, founder of [Apptic](#) consulting company. “It’s invaluable to be able to talk your way through a problem, rather than to just get the optimal solution. The solution itself isn’t nearly as important as the thought process.”

3. BUSINESS SENSE

Developers often thrive best when they have some business sense—that is, when they can look beyond the immediate uses of their code, said Anna Daugherty, digital marketing manager of [PITSS](#). “They need to be able to see how their software or application fits into the wider scope of the enterprise, how their project drives ROI, and how they’re contributing to the overall organizational health,” she said. “If they have this skill, they’ll work harder, smarter, and be able to speak the language of the executives who need them to produce better results.”

Companies are usually not only looking for programmers who write good code, said Greg Hoffer, vice president of engineering at [Globalscape](#). “They are running a business and need programmers who understand that there is always more than one way to skin a cat,” he said. “Pragmatic problem solving that builds business value or makes customers happy is just as important as broad and deep experience in any given programming technology.”

4. THE ABILITY TO ARTICULATE YOUR JOB EXPERIENCE

Be prepared to answer questions about your last job, said Marco Cirillo, application architect at [Clearbridge Mobile](#). Questions might include:

- What were your roles and responsibilities at your last job?
- What were some difficulties you experienced at your last job?
- What have you built that you are especially proud of?

“These are mostly just to see what they’ve worked on and to possibly assess the culture fit of the individual,” Cirillo said.

5. PROFICIENCY IN CORE PROGRAMMING LANGUAGES

Make sure you're fluent in the main language and framework used at the company, said Peter Sugihara, co-founder of [Open Listings](#). "Smaller companies have fewer resources to teach new hires, so this can seriously tip the scales in your favor because you'll get up to speed quicker when you start," he said.

6. AN UNDERSTANDING OF ALGORITHMS AND DATA STRUCTURES

Data structures are a core programming concept, so it's mandatory for all programmers to know the basic data structures, Cirillo said.

Larger companies tend to ask more algorithm questions, while smaller companies tend to be more programming-focused, Sugihara said. Gayle Laakmann McDowell's [Cracking the Coding Interview](#) book is a great resource for algorithm questions, he added.

Along with programming language skills, "These two skills combined demonstrate an expansive and nuanced grasp of the fundamentals needed to succeed within any organization fast," said Vivek Ravisankar, co-founder and CEO of [HackerRank](#). "They're also great indicators of computational thinking, which is a key trait of great software developers."

7. A BREADTH OF KNOWLEDGE

For more senior positions, demonstrate a deep knowledge of a number of areas, said Millecam. "Talk about multiple frameworks and their advantages and how to employ them if the need arises. Don't evangelize a single technology stack."

8. THE ABILITY TO THINK ON YOUR FEET

Expect to be asked to think on your feet, said Michael Durney, president and CEO of [Dice](#). When presented with a question such as "How would you deploy a new application across the company, using both public and private cloud services?" Durney recommended that you "recognize that the interviewer is looking to understand what research you've done about the company, and how familiar you are with its challenges as well as your ability to ask good questions to clarify the scope, boundaries, and assumptions that are important to answering a question like that."

Interviewers may also throw a few math puzzles or brain teasers at programming candidates to judge how quickly they can think through an unusual problem on their feet, said Peter Yang, co-founder of [ResumeGo](#). He recommended practicing [a few examples](#) before the interview to get used to the style of question.

HOW TO PREPARE FOR A DEVELOPMENT INTERVIEW

BY JUSTIN JAMES

Many developers I've met absolutely dread job interviews. And if you don't go on many interviews, it can be daunting to try to prepare for the experience.

Some articles about interviewing make it sound like a dark magic ritual, and you will be doomed if you do not utter the incantations perfectly. The reality is that interviewing is not really that hard; you just need to have an idea of what to expect, know how to handle some uncomfortable questions, and prepare to ask a few questions of your own.

COMPANY RESEARCH

The advice to research the company prior to the interview is one of those suggestions, like a doctor's advice to "start exercising" and "stop smoking," that everyone hears yet few people follow. But this tip bears repeating: You *must* research the company and the position before your first interview. You should spend at least 30 minutes learning about the company's industry, what markets it services, what its customer base looks like, how the hiring department fits into its overall strategy (if possible), and so on. This research is critical because it lets you talk comfortably about the position and ask pertinent questions. It will also help the interviewer feel more at ease with you and will help the conversation flow better.

After completing your research, you should come up with a few questions that address any concerns you might have. For example, if your research shows that the project you might be working on is rapidly losing market share, you can tactfully ask what is being done to reverse that trend. It may be a sore spot, but it is better to know the job involves working on a doomed project. No matter what, always frame your questions in a positive way; for example, "What are you doing to keep from going under?" is not nearly as good as, "What is your strategy to regain the competitive advantage?"

TECHNICAL QUESTIONS

You should expect to be asked technical questions. Some interviewers might ask you to solve problems on a whiteboard using pseudo-code or perhaps ask you to look at code and spot the problems with it. These exercises are designed to see how well you think about working with code without the aid of tools such as an IDE or a compiler. In addition, the interviewer will get an idea of how well you can communicate things like why you chose a particular solution over another and whether you can explain technical details well.

Typical interview questions might be about simple things like a Fibonacci sequence calculator or a tree walking algorithm. If you take the time to understand the question, you'll probably be able to answer it with only a minute or two of thought. If you flub these questions, it's almost a guarantee that you will not get the job.

When answering interview questions, it's important to tailor your language to the audience. If you're being interviewed by the senior developer and the lead architect, you can probably be much more technical than if the interviewer is a project manager. When I'm not sure of someone's level of technical knowledge, the strategy I like to employ is to start with plain, nontechnical language and say something along the lines of, "I'm not sure what your technical background is; I'd be glad to go into more detail if you are comfortable with that." This shows the interviewer that you can communicate effectively and appropriately across the board and will not need someone else to "interpret" for the nontechnical team members.

You'll also probably be asked to elaborate on your work history. This is why it is important not to puff up your resume. If it looks like you played a central role in a project and you really didn't, you'll be exposed here. Make sure that your resume appropriately states your involvement in projects and be prepared to go into detail in terms of what you accomplished, the technologies used, and how you used them.

WORK EXAMPLES

If possible, bring some examples of your work. Never ever bring code from your job unless it is open source or otherwise permissible. Not only will you be in violation of your employment contract, but it makes you look irresponsible. This is why it's a good idea to work on an open source project or write a few learning applications at home—it gives you something to use as a code sample. Some employers won't even do a phone interview without seeing a code sample first.

If you can't show off your actual code, you may be able to bring screenshots of your application or point interviewers to it if it is a publicly available application. At one point, I made a Flash portfolio with screenshots of Web sites I had worked on and included traffic numbers from before and after the redesign to prove that my design and HTML were a substantial improvement. That portfolio impressed a lot of people and was a game changer for when I was interviewing during that period of time. While not every potential employer will ask for code samples, if you're asked for some and can't furnish any (or have to scramble to do so), your chances of getting the job are significantly damaged if there are other suitable candidates.

WORK STYLE QUESTIONS

Interviewers will also ask you questions about **how** you work. It is critical to answer these questions honestly, even if you feel like the answer may not be the best. Why? Because chances are, you're a horrible liar, and because it is better to have a job that fits you than one you hate.

One of the worst pieces of advice out there is in regard to the question, “What is your greatest strength/weakness?” People try giving “clever” answers like, “My weakness is that I love work so much that I come in on the nights and weekends to make sure we hit deadline.” Sounds good, right? Wrong! What’s going to happen when they hire you based on your claim that you’re willing to put in 70 hours a week and then when you’re on a Death March, you’re miserable? Now you’re unhappy and a proven liar.

When I’m asked that question, here’s what I tell the interviewer, as painfully truthful as it is: “I sometimes allow myself to get frustrated more easily than I should, and it affects my attitude at times. I’m aware of it, but I’ve been working hard to change it, and I have been making a lot of progress with it over the years.” Am I still “turning a liability into an asset?” Sure. But interviewers appreciate the honesty, and they know that if I am willing to give an answer like that, I can be counted on to not play games with the truth as an employee.

It might be a good idea to do a mock interview with someone else so that you get a chance to answer these questions in advance, rather than being caught flatfooted in an interview and appear as though you don’t know yourself very well.

QUESTIONS TO ASK THE INTERVIEWER

As mentioned earlier, you should have questions for the interviewer. I like to bring a notepad with me (spend a few dollars on a nice one that looks professional) and jot down questions as the interview progresses. For example, if the interviewer mentions someone’s name and they sound important, ask their role in the project. Take interest and try to get a full and complete idea of the work and the company. Remember, you’re not only trying to sell yourself to the employer, but you’re also trying to find out if the job is right for you.

- Excellent questions to ask the interviewer include the following:
- Other than (main language being used), what technologies are involved in this environment?
- What percentage of the role is new development compared to maintenance?
- Are there any unusual techniques or programming styles you use?
- Are you using an Agile or a Waterfall methodology?
- What version control system do you use?
- What makes working on this project different from some of the other projects I have worked on in the past?
- Can I get a tour of the workspace? This gives you a chance to see what the work environment is like and possibly meet some of the other team members in the process. The tour is one of the most useful parts of the interview, and if you are not offered one, you should politely ask for one if there is time.

Some questions are *strictly off limits*. Topics you want to avoid include the following:

- Anything regarding compensation, unless they broach the topic.
- Questions regarding hours of operation (unless the job is specifically shift work, in which case it is fine to ask what shift they're hiring for), vacation days, dress code policy, break policies, personal phone usage policies, web surfing policies, whether they record IMs, etc. These questions scream, "I want to get paid for not doing my job!"
- Any questions they would not be allowed to ask you for Equal Employment Opportunity reasons (like ethnicity, religion, nation of origin, etc.). Not only are these questions rude, but they are inappropriate.

PERSONALITY QUIRKS

Everyone is unique; however, some folks don't make a good impression in interviews and don't get hired because of it. One person I interviewed brought up an argument with a boss from nearly 30 years earlier when asked about previous challenges at work. Needless to say, I wasn't interested in working with someone who held a grudge longer than I had been alive. Another person I interviewed, when asked about competing technologies, had a dogmatic way of discussing technical matters. This made me cautious because I felt like we would spend a lot of time justifying every decision we made that he did not agree with, even if it did not concern him. He was hired anyway and that problem did come up.

Some common quirks that can affect your chances of being hired include the following:

- Leg jiggling, finger tapping, etc. These habits make you seem like a nervous person and can also be extremely grating on others' nerves.
- Overwhelming scents, ranging from too much (or too strong) perfume and cologne to the lack of deodorant to cigarette smoke.
- Inappropriate jokes. If you wouldn't tell the joke to a five-year-old, do not tell it at an interview.

It is fine to let some personality show when you interview. I tell jokes (as long as they are appropriate and take no more than a few seconds) and almost always wear a slightly offbeat or unique tie to offset my plain black suit, for example. But you should make sure you're only showing the positive side of your personality. Before you go to the interview, solicit honest feedback from friends and family about what might give an interviewer a bad impression of you.

CONCLUSION

A job interview is a lot like a first date; both parties have a limited amount of time to find out as much as possible about each other. By understanding the kinds of questions you might be asked, what behaviors are appropriate, and what types of questions to ask in return, you maximize your chances of not only getting an offer, but knowing if the position and company are a good fit for you.

TIPS FOR DOING A VIDEO INTERVIEW THE RIGHT WAY

BY ERIN CARSON

If you're on the job hunt, there's a chance your next interview might be via video.

Chris Brown, director of human resources at [InterCall](#), said there are a few reasons for that. At-home staff in IT is more common, plus the technology for handling conferencing and collaboration has vastly improved. And if you're going to be talking with a recruiter, it's a lot more convenient for them.

"It's a matter of being able to stack up interviews throughout the day and consistently have them run within the timeline," he said. The recruiter can also eliminate little time-sucks like small talk and making sure the candidate can find the office. Brown said the no-show rate for video interview is lower than in-person interviews, as well.

In any case, all this means that you might be faced with interviewing for a job from your bedroom or den. Here are a few tips for dealing with the format.

1. CHECK THE TECH

Whatever platform you're using, whether it's GoToMeeting, Skype, Zoom, or some other video conferencing software, always test it first. You don't want to jump on a minute before your interview and find out there's some plugin you need to download. Brown even suggested researching the software's support resources about any system requirements and which browser works best. Otherwise, you'll look unprepared—and any time you lose from the interview, you probably won't get back.

2. SET THE ROOM

If you can't be in an office, try for a professional setting. Be aware of what can be seen from the webcam, and the distance you need to be from it, as well as where you should be looking (at the webcam, mostly) when you talk.

You should also pay attention to lighting.

"I've done interviews where the person looked like they're in the witness protection program because they had the sun right behind them," Brown said.

3. PUT YOUR PETS AWAY

This tip is really about limiting potential distractions. Also, as Brown said, you don't want to be the candidate with a crazy story because something went off the rails, like your dogs went nuts in the background.

"You're stuck with that story as an applicant, and that's going to be the story. 'Oh yeah, you know what, I was interviewing a guy and he sounded great, and two dogs came in barking and it took him a while to put the dogs away,'" Brown said.

4. BE PROFESSIONAL

This is broad, but really what it means is that you're dressed appropriately, you're on time, and you're prepared. So no baseball caps or t-shirts. Either ask about preferred dress or opt for business casual, Brown said. Make sure your phone is off, and on the off chance that something goes awry, you know who to call immediately. Don't keep the interviewer waiting. It's your show, Brown said.

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