amazon

Thank you taking the time to speak with us.
The below tips are intended to enhance your candidate experience.

Amazon—a place where builders can build. We hire the world's brightest minds and offer them an environment in which they can invent and innovate to improve the experience for our customers. We want employees who will help share and shape our mission to be Earth's most customer-centric company. Amazon's evolution from Web site, to ecommerce partner, to development platform, is driven by the spirit of invention that is part of our DNA. We do this every day by solving complex technical and business problems with ingenuity and simplicity. We're making history, and the good news is that we've only just begun.

Work hard. Have fun. Make history.

Our engineers tackle some of the most complex challenges in large-scale computing. Software development engineers, technical program managers, test engineers, and user-interface experts work in small teams across the company to contribute to the e-commerce platform that's used by:

Over 152 million active Amazon customer accounts
Over 2 million active seller accounts
Hundreds of thousands of external developers

Technical Topics to Review

Programming Languages

At Amazon, teams build software using the languages and platforms that best fit their business need. A lot of these are proprietary to Amazon, so previous experience with our tools is not expected. While we use a lot of Java at Amazon, previous Java experience is not a requirement either. We believe in hiring great computer scientists and that a talented software engineer can learn any language. While we are agnostic about what languages you have worked with in the past, familiarity with a prominent language is generally a prerequisite for success. Not only should you be familiar with the syntax of a language like Java, Python, C#, C/C++, you should be familiar with some of the languages' nuances, such as how memory management works, or the most commonly used collections or libraries, etc.

Data Structures

Most of the work we do involves storing and providing access to data in efficient ways. This necessitates a very strong background in data structures. You'll be expected to understand the inner workings of common data structures and be able to compare and contrast their usage in various applications. You will be expected to know the runtimes for common operations as well as how they use memory. Wikipedia is a great resource for brushing up on data structures.

"Random forests, naïve Bayesian estimators, RESTful services, gossip protocols, eventual consistency, data sharding, anti-entropy, Byzantine quorum, erasure coding, vector clocks ... walk into certain Amazon meetings, and you may momentarily think you've stumbled into a computer science lecture."

- Jeff Bezos, 2010 Shareholder letter

Algorithms

Your interview with Amazon will not be focused on rote memorization of algorithms; however, having a good understanding of the most common algorithms will likely make solving some of the questions we ask a lot easier. Consider reviewing traversals, divide and conquer, and any other common algorithms you feel might be worth brushing up on. For example, it might be good to know how and when to use a breadth-first search versus a depth-first search, and what the tradeoffs are. Knowing the runtimes, theoretical limitations, and basic implementation strategies of different classes of algorithms is more important than memorizing the specific details of any given algorithm.

Coding

Expect to be asked to write syntactically correct code—no pseudo code. If you feel a bit rusty coding without an IDE or coding in a specific language, it's probably a good idea to dust off the cobwebs and get comfortable coding on a whiteboard or with a pen and paper. The most important thing a Software Development Engineer does at Amazon is write scalable, robust, and well- tested code. These are the main criteria by which your code will be evaluated, so make sure that you check for edge cases and validate that no bad input can slip through. A few missed commas or typos here and there aren't that big of a deal, but the goal is to write code that's as close to production ready as possible. This is your chance to show off your coding ability.

Object-Oriented Design

Good design is paramount to extensible, bug free, long-lived code. It's possible to solve any given software problem in an almost limitless number of ways, but when software needs to be extensible and maintainable, good software design is critical to success. Using Object-oriented design best practices is one way to build lasting software. You should have a working knowledge of a few common and useful design patterns as well as know how to write software in an object- oriented way, with appropriate use of inheritance and aggregation. You probably won't be asked to describe the details of how specific design patterns work, but expect to have to defend your design choices.

Databases

Most of the software that we write is backed by a data store, somewhere. Many of the challenges we face arise when figuring out how to most efficiently retrieve or store data for future use. Amazon has been at the forefront of the non- relational DB movement. We have made Amazon Web Services such as SimpleDB and DynamoDB available for the developer community that let them easily leverage the benefits of non-relational databases. The more you know about how relational and non-relational databases work and what tradeoffs exist between them, the better prepared you will be. However, we don't assume any particular level of expertise.

Distributed Computing

Systems at Amazon have to work under very strict tolerances at a high load. While we have some internal tools that help us with scaling, it's important to have an understanding of a few basic distributed computing concepts. Having an understanding of topics such as service oriented architectures, map-reduce, distributed caching, load balancing, etc. could help you formulate answers to some of the more complicated distributed architecture questions you might encounter.

Operating Systems

You won't need to know how to build your own operating system from scratch, but you should be familiar with some OS topics that can affect code performance, such as: memory management, processes, threads, synchronization, paging, and multithreading.

Internet Topics

You're interviewing at Amazon. We do a lot of business online, and we expect our engineers to be familiar with at least the basics of how the internet works. You might want to brush up on how browsers work at a high level, from DNS lookups and TCP/IP, to socket connections. We aren't looking for network engineer qualifications, but a solid understanding of the fundamentals of how the web works is a requirement.

This was a relatively long list of topics to review and might seem somewhat overwhelming. Your interviewers won't be evaluating your ability to memorize all of the details about each of these topics. What they will be looking for is your ability to apply what you know to solve problems efficiently and effectively. Given a limited amount of time to prepare for a technical interview, practicing coding outside of an IDE and reviewing CS fundamentals will likely yield the best results for your time.

> "Invention is in our DNA and technology is the fundamental tool we wield to evolve and improve every aspect of the experience we provide our customers."
>
> - Jeff Bezos, 2010 Shareholder letter

Interview Tips

- Be prepared to discuss technologies listed on your resume. For example, if you list Java or Python as technical competencies, you should expect technical question about your experience with these technologies. It's also helpful to review the job description before your interview to align your qualifications against the job's specific requirements and responsibilities.

- Please ask clarifying questions before you start to solve. We want the interview process to be collaborative. We also want to learn what it would be like to work with you on a day-to-day basis in our open environment. If you are asked a question, but not given enough information to solve the problem, drill down to get the information that you need. If that information isn't available, focus on how you would attempt to solve the problem given the limited information you have. Often times at Amazon, we have to make quick decisions in the absence of all of the relevant data.

- When answering questions, be as concise and detailed in your response as possible. We realize it's hard to gauge how much information is too much versus not sufficient enough; an effective litmus test is pausing after your succinct response to ask if you've provided enough detail, or if the interviewer would like you to go into more depth.

> "Many of the problems we face have no textbook solution, and so we happily invent new ones."
> - Jeff Bezos, 2010 Shareholder letter

- We want to hire smart, passionate people. Please reflect on what motivated you to pursue a career with Amazon and be prepared to speak to it. Although "Why Amazon?" is a standard type of question, it's not a check-the-box type of formality for us. We genuinely want to understand what inspired you to explore an opportunity with us, so we get a better sense of who you are. It's also appreciated when a candidate has put thought into a few questions for the interviewer. It goes a long way when you've taken the initiative to research the company prior to your interview.

Our Leadership Principles

Amazon's Leadership Principles are the tenets of our company that we use every single day at Amazon and we rely on them to help us make hiring decisions. Since the interview team is going to be thinking of your responses in the context of the Leadership Principles, we recommend mapping your experience to each of the principles. The best way to do this is to print out a list of the Leadership Principles and write down examples from your professional experience for each of them. While there's no need to memorize the Leadership Principles, it's a good idea be very familiar with them and specifically how your experience relates to them. When coming up with the examples, it's important to have different examples for each of your interviewers so we get a well-rounded idea of your experience and background. Amazon is a very data-driven company, so try to come up with some examples that include metrics or data. There's nothing better than bolstering a success story with a great data point.

Amazon is a data and metric driven company. You should keep your focus on the question asked and make sure your answer is tangible. We suggest the STAR Method.

<u>The Star Method</u>

*The STAR method is a structured manner of responding to a behavioral-based interview question by discussing the specific **s**ituation, **t**ask, **a**ction, and **r**esult of the situation you are describing.*

Situation: Describe the situation that you were in or the task that you needed to accomplish. You must describe a specific event or situation, not a generalized description of what you have done in the past. Be sure to give enough detail for the interviewer to understand. This situation can be from a previous job, from a volunteer experience, or any relevant event.
Task: What goal were you working toward?
Action: Describe the actions you took to address the situation with an appropriate amount of detail and keep the focus on YOU. What specific steps did you take and what was your particular contribution? Be careful that you don't describe what the team or group did when talking about a project, but what you actually did. Use the word "I," not "we" when describing actions.
Result: Describe the outcome of your actions and don't be shy about taking credit for your behavior. What happened? How did the event end? What did you accomplish? What did you learn? Make sure your answer contains multiple positive results.

Make sure that you follow all parts of the STAR method. Be as specific as possible at all times, without rambling or including too much information. Also, eliminate any examples that do not paint you in a positive light. However, keep in mind that some examples that have a negative result (such as "lost the game") can highlight your strengths in the face of adversity.

Customer Obsession
Leaders start with the customer and work backwards. They work vigorously to earn and keep customer trust. Although leaders pay attention to competitors, they *obsess* over customers.

Ownership
Leaders are owners. They think long term and don't sacrifice long-term value for short-term results. They act on behalf of the entire company, beyond just their own team. They never say "that's not my job".

Invent and Simplify
Leaders expect and require innovation and invention from their teams and always find ways to simplify. They are externally aware, look for new ideas from everywhere, and are not limited by "not invented here". As we do new things, we accept that we may be misunderstood for long periods of time.

Are Right, A Lot
Leaders are right a lot. They have strong judgment and good instincts. They seek diverse perspectives and work to disconfirm their beliefs.

Learn and Be Curious
Leaders are never done learning and always seek to improve themselves. They are curious about new possibilities and act to explore them.

Hire and Develop the Best
Leaders raise the performance bar with every hire and promotion. They recognize exceptional talent, and willingly move them throughout the organization. Leaders develop leaders and take seriously their role in coaching others. We work on behalf of our people to invent mechanisms for development like Career Choice.

Insist on the Highest Standards
Leaders have relentlessly high standards - many people may think these standards are unreasonably high. Leaders are continually raising the bar and drive their teams to deliver high quality products, services and processes. Leaders ensure that defects do not get sent down the line and that problems are fixed so they stay fixed.

Think Big
Thinking small is a self-fulfilling prophecy. Leaders create and communicate a bold direction that inspires results. They think differently and look around corners for ways to serve customers.

Bias for Action
Speed matters in business. Many decisions and actions are reversible and do not need extensive study. We value calculated risk taking.

Frugality
Accomplish more with less. Constraints breed resourcefulness, self-sufficiency and invention. There are no extra points for growing headcount, budget size or fixed expense.

Earn Trust
Leaders listen attentively, speak candidly, and treat others respectfully. They are vocally self-critical, even when doing so is awkward or embarrassing. Leaders do not believe their or their team's body odor smells of perfume. They benchmark themselves and their teams against the best.

Dive Deep
Leaders operate at all levels, stay connected to the details, audit frequently, and are skeptical when metrics and anecdote differ. No task is beneath them.

Have Backbone; Disagree and Commit
Leaders are obligated to respectfully challenge decisions when they disagree, even when doing so is uncomfortable or exhausting. Leaders have conviction and are tenacious. They do not compromise for the sake of social cohesion. Once a decision is determined, they commit wholly.

Deliver Results
Leaders focus on the key inputs for their business and deliver them with the right quality and in a timely fashion. Despite setbacks, they rise to the occasion and never settle.

Amazon Press

- Amazon Ranks #1 Most Reputable Company: http://www.geekwire.com/2015/amazon-ranks-as-the-no-1-most-reputable-company-inthe-u-s-apple-falls-to-187th/

- Jeff Bezos' Philosophy on Compensation: http://management.fortune.cnn.com/2012/11/16/jeff-bezos-amazon/?iid=obnetwork

- Peculiar Traits of Amazon Leaders: http://www.geekwire.com/2015/the-peculiar-traits-of-great-amazon-leaders-frugal-innovativeand-body-odor-that-doesnt-smell-like-perfume/

We appreciate your interest in Amazon.