Amazon Technical Interview

Prep Information

Below I am including the job description for the role, along with information about the product this team supports and some preparation material you should review.

1. **Job Description**: https://www.amazon.jobs/en/jobs/2031506/front-end-engineer-i-workdocs-aws-aws-workdocs-web?no_int_redir=1
2. **Product:** https://aws.amazon.com/workdocs

You should expect your interview to follow a format similar to what is listed below:

1. **Leadership Principles:** (behavioral) 10-15 minutes
- Helpful links to review:
    - https://www.amazon.jobs/en/principles
    - https://www.amazon.jobs/en/landing_pages/interviewing-at-amazon
    - https://www.aboutamazon.com/news/workplace/whats-it-like-to-interview-at-amazon
- Your interviewer will be asking behavioral questions(i.e., "tell me about a time when...", or "describe a situation in which...".
- You can make your answers stand out by tying in some type of underlined measurable outcome and underlined providing relevant data to support your answer.
- Please review the STAR method when answering questions:
    - **SITUATION:**
      Describe the situation that you were in, or the task that you needed to accomplish. Give enough detail for the interviewer to understand the complexities of the situation. This example can be from a previous job, school project, volunteer activity, 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? What was your particular contribution? Be careful that you don't describe what the team or group did when talking about a project. Let us know 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? Provide examples using metrics or data if applicable.

- **Example LP Questions:**
  - Tell me about a complex technical problem that you had to work through on a project you managed/owned. How did you solve it?
  - How do you manage or mitigate risks for a project?
  - What do you do if a few weeks before big launch you discover that a feature won't be delivered in time? What did you do?
  - Tell me about a goal that you set that took a long time to achieve or that you are still working towards. How do you keep focused on the goal given the other priorities you have?
  - Tell me about a time when you had to analyze facts quickly, define key issues, and respond immediately to a situation. What was the outcome?
  - Give me an example of a time you used customer feedback to drive improvement or innovation. What was the situation and what action did you take?

2. **Coding/Problem Solving:** (technical) 40 minutes
   The technical exercise will ask you to implement your knowledge of date structures/algorithms to determine the most optimized solution to the problem as well as translate to code. **TIP:** The interviewers like to see you ask some clarifying questions, stating any assumptions before you before solving the problem. Feel free to discuss your method of attack and let the interviewer know what you are thinking. Please utilize the preparation material and PDF documents provided to you as a primary resource.
   For your Technical Screen the most important thing a Front End Engineer does at Amazon is write **scalable, robust**, and **well-tested code**. These are the main evaluation criteria for your code. Make sure that you check for **edge cases** and validate that no bad input can slip through. This is your chance to show off your coding ability.

To best prepare for Amazon's Technical Problem Solving Challenge, here are some resources:
- **Cracking the Coding Interview -** http://www.amazon.com/Cracking-Coding-Interview-Programming-Questions/dp/098478280X
- **Algorithm Fundamentals: -** http://algs4.cs.princeton.edu/10fundamentals/
- **Fundamentals:** Go back and re-educate yourself on all data structures & algorithms. You will be challenged on several of the methods in the On-Site interview so you might as well start practicing now! Make sure you even get into more exotic things like hashmaps, b+trees (and variants), caches (and associated algorithms). You may want to visit www.codechef.com

- **Project Euler** - http://projecteuler.net/ If you've been out of practice, complete up to problem 60 or so. You should be prompted to build useful libraries, which will help give practical experience for interview like problems. Don't cheat or take shortcuts.
- **Google Coding Contest** has additional practice questions: http://code.google.com/codejam/contests.html
- **Understand high scale architecture**. Go look at how other big sites are structured: http://highscalability.com/blog/category/example
- **Get a feel for the interface and functionality with our demo version:** https://www.myamcat.com/amazon-lateral-demo
- Attached is a PDF Prep doc we generally send for final/panel interviews, but I included it as gives a good idea of what competencies/skills are assessed for Front End Engineers here at AWS
- Helpful links to review:
  - https://xjamundx.medium.com/understanding-amazons-front-end-engineering-interview-5e9f38b58058
  - https://adrianmejia.com/data-structures-time-complexity-for-beginners-arrays-hashmaps-linked-lists-stacks-queues-tutorial/
  - https://medium.com/@sagormahtab/10-javascript-coding-challenges-that-you-might-face-in-interview-b3e2f029a076
  - https://www.codecademy.com/resources/blog/css-interview-questions/
  - https://www.amazon.jobs/en/landing_pages/p-software-development-topics

- <u>**Key Tips:**</u>
  - Before jumping into any code, answering any questions, etc. – <u>**ASK CLARIFYING QUESTIONS.**</u> Make sure you are fully aware of what they want to see by asking questions to get more data as needed. They want to see you dive deep into what they are looking for. You will purposefully be asked ambiguous questions throughout the interview to gauge your problem solving skills.
  - Code or script in the language you are most comfortable using.
  - As you are putting your code on the board THINK OUTLOUD and walk them through the steps you are taking. It is important to show them your thought process as you answer their questions. Engage them in why you are doing what you are doing.
  - By no means do we expect you to get every single question right. They will also be gauging your ability to take coaching, come up with alternate solutions, and show your ability to analyze a problem and come up with various solutions.
- Be prepared for questions that can increase in complexity. Make sure you

clarify any ambiguous situations, examine requirements, dive deep into details, discuss pros/cons of several algorithms, implement optimal solutions, and be able to talk about technical tradeoffs. We expect you to be able to demonstrate strong expertise in data structures, write code that is logical & maintainable, and demonstrate good quality in the code.

- Here are some questions our interviewers will ask themselves during the coding portion of your phone screen.
  - Did they find most bugs?
  - Did they generate alternate approaches and deal with edge cases?
  - Did they test their own code?
  - Did they use language idioms correctly?
  - Is the code correct? Does the code work?
  - Is the code efficient?

3. **Remaining 5-10 minutes**: Time for you to ask questions.

What to expect afterwards? The HR Recruiting team will follow up with you within 2 business days after your phone interview regarding outcome and potential next steps.

Please don't hesitate to reach out if you have any questions!