Chart your own path with Amazon



Front End Engineer

Assessment preparation pack

Overview of the position

At Amazon we seek to be Earth's most customer centric company. Every day, millions of customers rely on Amazon to give them access to one of the world's largest selections of consumer goods. To continue to delight and exceed our customer's expectations, at Amazon, we take the quality of our catalog very seriously.

We are looking for a Front-end engineer with knowledge and skills in building highly interactive interfaces using modern JavaScript tooling like React, Angular, Thyme Leaf, JQuery, etc. We want someone who can work well in a heterogeneous environment of different languages and technologies, and can bring flexibility, speed and quality to our team. You should be genuinely excited about technology, have interest in learning about and playing with the latest technologies and building compelling web applications and UI.

A successful candidate will bring deep technical and software expertise and ability to work within a fast moving, startup environment in a large company to deliver solid code that has a broad business impact. You use your knowledge of the UX space to improve design and engineering processes and to build, create, and deliver the right experience for customers. If you enjoy designing and building highly distributed systems that can scale and solving challenging problems, come join us!

Training:

As an new member, you will go through induction training before joining your team. You will drive your own learning and development with guidance and coaching from your manager, buddy, and teammates. Your manager will have an Embark Launch Plan to help you get settled and familiarize yourself with the broader company as well as your team and project.

Responsibilities:

As a front end engineer at Amazon, you will work as part of a team and will help to create complex tools in several different programming languages that will help improve the quality of Amazon's catalogue. You'll create professional quality software by applying software engineering best practices, while being exposed to cutting edge technologies. Since we have a wide variety of projects and technologies, we are looking for different profiles from engineers interested in front end development (for our hybrid mobile applications and website) to back end engineers (focused in solving complex multi objective resource allocation problems), full stack, as well as machine learning engineers for our recommendation or fraud detection systems

Recruiting Process

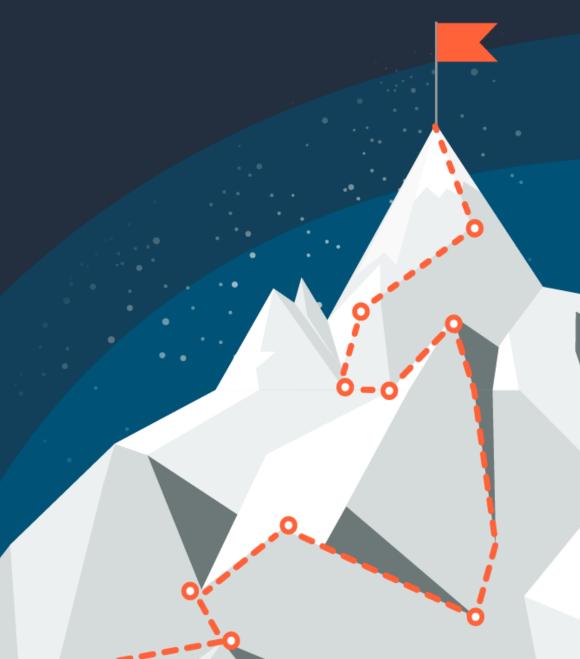
Online Assessment: In the first stage, you will attempt an online assessment. (Duration- 90 minutes). You will be assessed on tech skills like FEE coding where your ability to develop to meet certain criteria and design requirements, basics programming constructs, data structures, and algorithms specific to the FEE role will be assessed. We will provide you with the outcome of your assessment within 5 business days.

Virtual Interviews: If your online assessment has been successful, you will be invited to a series of virtual interviews. You will have a maximum of 3 interviews, 60 minutes each Your interview will primarily focus on testing your technical skills

We actively encourage you to ask questions to each interviewer to gain as much insight as possible on the problem statement.

Offer stage: The virtual interview is the final stage of the process. After this interview your recruiter will share the outcome within five days. If your application was not successful this time around please don't be discouraged, we welcome your application again, six months from the date you received your outcome, you may apply again.

NOTE: Amazon does not provide interview feedback as a matter of company policy.



Visit <u>interviewing at Amazon</u> for more information. Good luck!

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Technical Interview Topics

Our interviews are mainly focused on how well you can use your acquired knowledge to troubleshoot real world problems. This document outlines areas that you should prepare ahead of your interview.

Coding:

Expect to be asked to write syntactically correct code. If you feel a bit rusty coding without an IDE or coding in a specific language, it's probably a good idea to refresh and get comfortable coding with a pen and paper

Programming:

We do not required that you know any specific programming language before interviewing for a technical position with Amazon, but 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++, or Ruby, 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. 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. The below mentioned are in no particular order

- Array
- Linked List
- •Tree (binary tree, binary search tree, red black tree, etc
- •Heap, Hash Table, Stack, Queue, Trie
- •Graph (both directed and undirected)

Algorithms:

It's also important to know efficient ways to manipulate data. One great way of doing this is brushing up on some common algorithms. We'll expect that you can apply and discuss the trade offs between some commonly used algorithms

- Sorting
- •Bubble, merge, quick, radix/bucket sort
- •Traversals (on multiple data structures)

Technical Interview Topics Contd.

Optimal Solutions:

During the technical interview, you are going to be evaluated on how optimal your coded solutions are Your interviewers are not interested in seeing pseudo code or brute force solutions. They will be looking for clean and maintainable code that is as close to production ready as possible. Be sure to call out edge cases and check for bugs. There may be scenarios in which, due to time constraints, brute force is the only means of delivering a workable solution. In such a case, simply explain to the interviewer this is the approach you have taken due to time constraints

Ambiguity: Interviewers will often purposefully give you a problem or set of instructions that seem vague or lacking important information. It is your responsibility to deal with such ambiguity by gathering additional requirements and asking clarifying questions before diving head first into coding.

Coachability: Whether you find yourself struggling with a particular problem or you have come up with a workable solution that the interviewer deems sub-optimal, he/she may offer you guidance. Take their feedback and work with it. Amazon engineers spend their workdays dealing with technical challenges of mind-boggling scale so if they offer you guidance that takes you in a direction you are unaccustomed to or that feels counterintuitive, have a go.



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General Interview Topics

Personal Experience: We really want to get an understanding of how you think and how you solve problems. As much as possible, please try to talk things out and think out loud.

Leadership Principles: Spend time familiarizing yourself with the Amazon Leadership Principles, and use them as a guide to choose the stories and anecdotes from your career that you decide to share during your interview. We are aware that you may not have work experience examples to speak to; however, you are free to provide examples from your experiences at university, team projects, extracurricular activities, past internships, or even life in general. Examples that speak to tech are also advantageous but not mandatory.

Data Driven: Amazon is a very data-driven company, so try to provide examples using metrics/data. There's nothing better than supporting a success story with a great data point.

Customer Focus: Above all, think about customer impact. We are truly obsessed with our customers. We would like you to be able to take customer wants and needs into account when making and providing any products or services.

Motivation: Be prepared to speak about your motivation for the role and why you are interested in Amazon. "I applied for an internship role at Amazon in 2022 as I had heard from a few friends about how the internship has been a great learning experience for them. I had a great time during my six-month internship. I loved my project and the peers I worked with were very helpful. After, I was offered a full-time position, I decided that Amazon is the place for me."

Paula – '22 intern and '23 graduate.

