

Informational Interview Report



Introduction

Purpose: The purpose of this report is to summarize the findings of what it entails to be a Software Developer Engineer. Writing this report is beneficial to myself and many other Computer Science undergraduate students, who are the main audience of this report, when looking for internships or recent-graduate jobs as Software Developer Engineers, especially if the position is at Amazon.

About Me and the Interviewee: I am currently a third-year UC Davis student studying Computer Science. I recently interviewed Vinit, a Software Development Engineer at Amazon. Vinit has been working at the company for four years since he graduated UC Berkeley. Previously, he interned with the company for two summers during his undergraduate studies. During Vinit's tenure at Amazon, he started under the Goodreads division working on the Goodreads Android app and he now currently works as part of the Amazon Key division where he contributes to the relevant Android app.

Throughout the interview, I asked Vinit questions pertaining to working as a Software Development Engineer for Amazon, the perks of being a Software Developer at Amazon, the culture of Amazon, and the preparation he personally did during his undergraduate studies. In this report, I discuss...

What to expect as a Software Development Engineer?

Software development engineers (SDE) work in a range of industries to apply the principles and techniques of computer engineering, information analysis, and computer science to design, build, and develop their employers' computer systems and software. The following sections provide more detail on how to meet the requirements of this task.

What are the qualifications and experience needed for this position?

According to [Computerscience.org](https://www.computerscience.org) there are some common qualifications potential software development engineers should possess. Some of these qualifications are:

- Familiarity with computer programming languages such as C/C++, Java, Python, Javascript etc
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- Familiarity with operating systems such as Linux, Solaris, Mac OS X, Windows, BSD, etc
 - Proficiency with Databases such as MySQL, Oracle, or PostgreSQL
 - Ability to work in a team environment
 - Ability to communicate technical information to non-technical people
 - Superb oral and written communication skills
 - Continued professional to stay current with new technologies

Usually, Software Development Engineer internships or recent-grad positions might only require a few of these requirements, but it is still beneficial for potential software development engineers to possess each of these qualifications. Most software development engineer positions will require a Bachelor's Degree in Computer Science, Computer Science Engineering, or any related field such as Mechanical Engineering or Mathematics. ([ComputerScience.org link](http://ComputerScience.org))

To what extent do you work independently or on teams?

As a Software Developer Engineer, your employer will probably place you on a team which is specific to the certain mission or product you want to be associated with. Amazon organizes each team into different “orbs” depending on what you are working on. For example, there are teams for Amazon AWS, Amazon



Echo, Amazon Music, Goodreads, Twitch, and more. You will also bear a variable number of responsibilities depending on what team you are a part of. Vinit told me that teams that deal with hardware products (i.e. Amazon Echo, Amazon Kindle) have more strict deadlines than teams that deal with software products. You can expect each team to be further divided into sub-teams based on the platform your working. For instance, Vinit worked on the Android app during his time in the Goodreads division but there were two other teams for the IOS application and the Backend Team.

On the other hand, from Vinit's experience at Amazon, you should also be responsible to work independently for yourself. He told me that “You have to be productive independently,” in order to be a qualified Software Developer. From Vinit's perspective, when starting out on the job you are more inclined to be working on a team. When you are mostly involved on the team, you will get a better grasp of your job duties. However, as time goes on and you gain experience, you start to become more flexible and independent. Soon you will be responsible for your “chunk of work” for your team. As you can see, flexibility is essential for Software Developer Engineers in order to maximize their work efficiency.

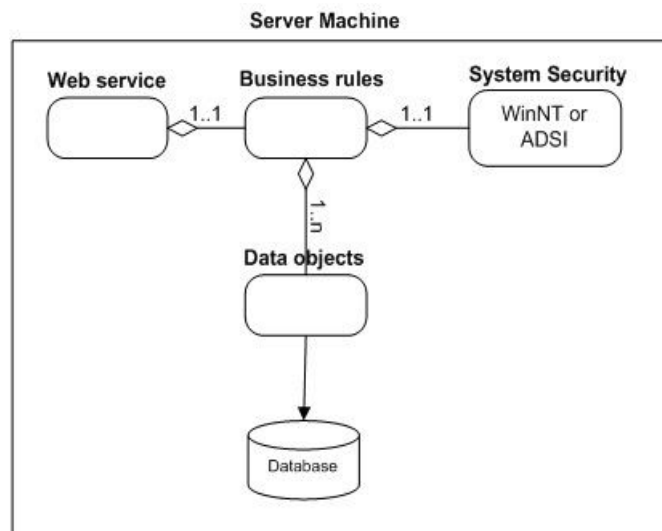
How is technical writing emphasized by being a Software Developer Engineer?

What types of documents are you expected to write?

Most of the documents you will have to write as a Software Developer will be related to the software you are working on. One example of these types of documents are "design documents." Design documents are abstract definitions of systems and components related to software. Many members of a software development team write these documents in collaboration. Vinit says, at Amazon, Software Development teams would write these design documents when new features are added to the software or if there is a change in the system design. First, the team gives members a certain topic about the additions to write about. Each member then shows the draft of their sections and the whole team revises the draft for each member to work on later.

How frequently will you have to write?

You won't have to be writing design documents every week because they are usually only required when there is a change to the software. Also if you are just starting out as an entry-level Software Developer Engineer at a large company, you may not be required to write any technical documentation. Vinit says that at Amazon, entry-level hires were not asked to be a part of the process. Employees who have experience working with the whole software system are most likely writing design documents.



How to be a good writer in this occupation?

Since most people in these positions will write design documents, a good knowledge of the system design of the software you are working on will be required. According to Vinit, you will probably gain this knowledge over time when working on the job. However he has some other tips for writing good design documents:

1. Be able to include visualizations that will be able to describe your software's certain capabilities.
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2. In these visualizations make sure to be abstract and include “black boxes” which do certain tasks without getting into the vast details in the process.
 3. Make sure to “design the document for a doc review”, or in other words be able to show that you thought of different ways to design this process so that a potential engineering team will see that you put a lot of thought in your draft process.

How should you prepare yourself in order to acquire this position?

Most of the audience of this report will be college students who want to acquire this position in the near future. Vinit told me about how he was able to prepare himself for this position.. He also gives some advice on what you should do differently than him.

What should you focus on at school in order to acquire the position?

If you are studying Computer Science or any other related skills, you are probably wondering what is transferable from your studies to the actual technology industry. If you are Computer Science student, you might have noticed by now the disparity from what you learn in Computer Science course and what skills you actually use in industry positions such as a Software Development Engineer. As a Software Development Engineer, you may be working in different areas where the knowledge of certain subjects depends on what sort of classes you took or your previous experiences. Some classes such as Data Structures and Object-Oriented Programming classes are almost essential to whatever career you want to pursue. However, you wouldn't need that much information from your Algorithm Analysis course if you were working on mobile apps and likewise you wouldn't need that much information from a Web Development course if you are working with big data platforms. Vinit says that getting your degree in Computer Science signifies that you are adept at your problem-solving skills. He emphasizes that the better you do during your undergraduate studies the more you are prepared for problems you'll face in your job.

What can you do outside of your studies to improve your chances of getting a position?

It is preferable to not just rely on your undergraduate studies if you want a full-time position or internship as a Software Development Engineer. Vinit told me that he focused a lot of his attention during his undergraduate studies on getting a position. He would learn the latest emerging frameworks and the participate in multiple hackathons to build projects. Another resource he found useful for the technical interview process was the book titled Cracking the Coding Interview. He also found it useful to go to every career fair offered through his college campus since there is a better chance he hear back from the companies he spoke to there than ones he applied to online.

However, during his first two years of undergraduate work, many companies would reject him for positions because he was a third-year or fourth-year student. Unless you have relevant work experience during those first two years, it is better to find work experience through a different avenue by either working for a startup, research projects, or independent work. Being involved in any of these avenues will show potential employers that you have the drive to do more than just your undergraduate studies.

Yet, it is still important for you to find a balance with your undergraduate studies and your involvement outside of studies. One of Vinit's biggest regrets was that he focused too much on his outside-of-school activities such that his grade-point average suffered from this. Focusing too much on outside projects at the cost of your GPA is a risk because many companies do take your GPA into account when analyzing you as a potential employee.

What is the company culture like at Amazon?

How can you tell if Amazon is a good fit for you?

No matter what Vinit will tell you about Amazon, every person has their own distinct preference for a company where you feel comfortable in their work environment. The best advice Vinit can give is that you should be open to different opportunities and see which work environment pleases you. In fact, he says that "Over time you also figure out which companies you're drawn to that brings you closer to the type of people you like."



Even if you are at a company as large as Amazon, it might be necessary to see which team better fits your work and personality. For instance, Vinit originally worked under the Amazon Music division during his internship, but once he got a full-time opportunity, he decided to work under the Goodreads division. He was in love with the relaxed ambiance under this division and decided to stay there. However, he recently changed to the Amazon Key division because he wanted a team that was more fast-paced.

How does Amazon reward accomplishments made by employees?

While in this position, there are opportunities to go above and beyond and in this case your actions are recognized in peer-to-peer callouts. If your hard work is noticed by a peer, they can submit a form in which they detail why your work has been outstanding. Then, during an all-hands meeting, there will be kudos given out to the people who were recognized by their peers.

In Vinit's experience, Amazon doesn't give out bonuses to employees who do outstanding work. Instead, those individuals will have a more accelerated career growth. Another tip is that if you have a good relationship between you and your manager you are more likely to advance in your career and title.

What are the benefits of the position?

What are the incentives and disincentives of being a Software Development Engineer?

It depends. Vinit says that "your incentives are based where you are in during your life." If you want a more stable position with good benefits, then your goal would be to work at a medium to a large-sized company such as Amazon. On the other end of the spectrum, you can work at a startup if you want a more risky opportunity to earn money. But, as stated before, wherever you are at your life will have an effect on why you will work at a certain position. Vinit, for example, has a family and wants a good work-life balance. At Amazon, he is able to shift his hours around such that he can work later in the day and he doesn't have to worry about a big shift in the way his team works due to his experience. These might be seen as incentives for one person to work at Amazon but might seem like negatives for another person. Being in this position in Amazon also means there are decreasing marginal returns as you go on and there isn't enough change in the ecosystem to keep you interested. Everything can either be viewed as a pro or con.

Therefore, it is in your hands to do research on a company before you try and apply for the position. Ask yourself is their work relevant to what I want to do? Does my work ethic fit their standards? Am I able to be happy while being in this position? Vinit says that once you are in the real world it is up to you to "discover the process for yourself" about where you want to work.

Conclusion

Overall I feel like I would be open to applying for a position as a Software Development Engineer at Amazon. First of all, I meet the qualifications in general for a SDE and am comfortable working on a team or independently. I also would not mind the amount of technical writing done, since the drafting process seems structured and I would not have to worry about it until I am more experienced in the position. Through my coursework and extracurriculars, I am prepared for the challenges that I would face on the job. I would not mind the largeness of Amazon since that means I can see which of the many teams

in the company are a right fit for me. I also prefer stability and good compensations that a company such as Amazon provides.

For anyone else who wants to be a Software Developer Engineer, one of the biggest points I got from talking to Vinit was to make sure to be involved in any opportunity you find interesting. Once you have that position you will likely see if the company you are working at is right for you and fits your needs. Therefore, if Amazon seems like a company you would be interested in through the details provided in this report I encourage you to attain that internship or full-time position.
