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<center>Software Engineering at Apple</center>

In terms of work opportunities and satisfying career options, studying software engineering offers a guaranteed career. There is an extensive variety of job options available. One who studies to become a software engineer can eventually obtain a job starting from becoming an IT consultant to even developing unique applications and websites for established companies. Software engineering is an evolving field of technological comprehension produced by applying techniques and strategies that ultimately design and develop software. It holds a significant importance in today's generation since technology has become a necessity in all workplaces. Some major software engineering corporations include Microsoft, Google, Apple, Facebook, and Amazon. These corporations are known all around the world and are used daily by consumers whether for educational reasons, entertainment, or the work field.

A tremendously familiar and popular corporation to many is Apple Inc.. Apple's main headquarters is located in Cupertino, California. It was initially established on April 1, 1976 by Steve Jobs, Steve Wozniak, and Ronald Wayne (Gallagher, 2021). Around the world, Apple branches out to 26 offices. According to the article "Job Creation", the author contributes the statistics about the number of jobs they provide to the public. Apple supplies over 2 million job opportunities for jobs either in actual Apple retail stores or behind the scenes of working on the actual programming of their many products (Job Creation, n.d.). Of the 2 million jobs, there is an estimate of 80 thousand workers that actually work in the Apple retail stores all around the world. There are also around 450 thousand jobs through Apple's U.S. based suppliers, and

1530,000 people receive U.S. jobs from the App Store ecosystem (Job Creation, n.d.). Apple provides remarkable software as well as hardware products to their customers. They sell products like iPhones, MacBooks, as well as Apple watches. In terms of software, Apple offers built in applications that makes both organization and management easier for its customers. Some examples of their built-in services are Apple Music, iCloud, Apple Arcade, and Apple Podcasts. They operate on their IOS operating system. Apple is known for its reliable and high-quality products and it continues to improve daily.

The Apple company has evolved in terms of software and hardware products since it was first introduced to the public. According to an article on the Apple website, Apple's objective is described as, "Our goal, in a nutshell, is to obtain stellar products and services within tight timeframes, at a cost that represents the best possible value to our customers and shareholders" (Apple and Procurement, n.d.). Apple is dedicated to providing their customers with high quality products and services. This is also important because they make sure their products are affordable and not only focused on one group of people, but to everyone that is interested in their products. Apple continues to release new and improved products yearly to keep their business fascinating.

Apple is an involvement of several members with different backgrounds, yet with the same purpose of serving high quality products. Apple has become what it is today from when it was first founded due to many major players and helpers. A few important characters that took part in this major corporation are Tim Cook and Craig Federighi. The CEO of Apple, Tim Cook, started off working at another company called IBM for 12 years. Of course, this was after his accomplishment of receiving a Bachelor of Science degree in Industrial Engineering from

Auburn University and continued his education at Duke University where he earned an MBA

degree. With this amount of education followed by work experience, he is able to hold a

significant and high position at Apple as their CEO (*Apple Leadership*, n.d.). Craig Federighi,

the Senior Vice President for Software Engineering at Apple, was able to hold this job position

from his accomplishments of earning a Master of Science degree in Computer Science as well as

a Bachelor of Science degree in both Electrical and Computer Engineering from UC Berkeley.

Regarding his work experience, Craig Deferighi spent time working at NeXT as well as Ariba.

His main position is being responsible for Apple's user interface as well as its applications

(Apple Leadership, n.d.). Education is obviously a notable portion of being able to obtain a

satisfactory position at a highly known company like Apple.

One very important aspect of a good business comes from the level of customer service

the company offers. Adequate customer service leads to high customer satisfaction, and this is

what causes business to increase. According to the book *The Apple Experience*, the author writes

about how effective Apple's customer service is in their business. She specifically mentions,

"Apple's customer service scores are the envy of the industry because its employees (Specialists,

Creatives, Experts, and Geniuses) strive to make customer experiences memorable and magical"

(Gallo, 2012). This clearly represents the dedication Apple employees provide to make sure that

they are giving their customers the best experience which will further encourage customers to

come back for more. This book continues on to mention the importance of customer loyalty and

why Apple is where it is today.

Reputation takes up a significant part of a business's progress, if a business is not known

to be trustworthy, then it will not attract as many customers. Apple overall has gained the

public's respect for its excellent reputation and professionalism when it comes to customer service and loyalty. According to another article titled "Inside Apple", the author acknowledges Apple as being the highest admired company based on its organized and extraordinary services as well as its customer satisfaction (Sorensen, 2012). Compared to other companies, Apple is known for being the most reliable since they provide warranty and support services if anything ever goes wrong. Also, another important feature of a successful business is not discriminating against any type of customers or applicants for employment. The company is controlled by a diverse group of people and allows those who exceed their expectations, regardless of their ethnical or religious background, to be a part of the team as well. From the Apple Website itself, it is claimed that "The number of Black employees in the U.S. has grown by more than 50%, with a 60% increase in leadership" (Inclusion & Diversity, n.d.). This is a noteworthy statistic as it represents the insertion of people of color at Apple where discrimination is not involved.

The book *100 Questions and Answers to Help You Land Your Dream IOS Job* mainly describes what Apple employers are looking for when hiring someone new to work. In this book, the author describes the expectations of applicants as being committed and dedicated to always producing the highest quality to their customers (Manas, 2018). Similarly, the Apple website itself states their expectations for applicants looking to work at Apple. Specifically, the article states, "Our requirements include a commitment to rigorous quality assurance. In addition, suppliers must be committed, as we are, to ensuring the highest standards of social responsibility" (Apple and Procurement, n.d.). This gives the applicant a good idea of what is being expected of them. As represented by all of these given statements by Apple itself, it is clear that high quality is a priority, and that is a great sign of business succession.

Apple is currently trending as one of the biggest and most known as well as fast growing companies for cellular and other technological devices. It grows daily as Apple puts out new software services as well as new products often in order to keep up with customer preferences. Employers look for highly educated candidates with a knowledge of a variety of programming languages to increase their productivity. The most recent product that has been trending is the brand-new iPhone 12 Pro Max. There has been an advancement in their software and each new iPhone contains a special new feature. The physical appearance of the iPhone generally looks similar with some alterations. For example, the transition from the iPhone 8 to the iPhone X (10) was quite significant since the entire home button was removed, and face ID was added instead. The new iPhones as well as other Apple products come out in either different colors or sizes and it is an ongoing trend to have the prettiest or biggest iPhone. It is exciting to see the new products that Apple comes up with every few years because it sets new trends for the current generation and helps their business grow instead of staying stagnant.

In order to pursue a career in the software engineering field, it is important to realize that it requires a sufficient amount of education and experience. Looking for the key requirements for qualifications to work as a software engineer for Apple, the company itself provides a list of what is essential to be employed. Specifically, in terms of education, the minimum requirement is a Bachelor of Science degree in Computer Science. For experience, Apple is looking to employ those who have at least 5 or more years of experience in software development in the languages C, Go, and Python, as well as working experience in a LINUX environment (Systems Software Engineer, n.d.). In the same article, it describes the general idea of what a software engineer should be expecting to do working there. It is specifically stated that, "You will be

pulled into an exciting project developing new and cutting-edge technology as well as support

escalations (Systems Software Engineer, n.d.). This gives a basic understanding of what exactly a

software engineer does for Apple. It is obvious from this that team projects will occur often in

order to keep the company constantly running smoothly.

Given that the requirements to acquire a job as a software engineer at Apple include

sufficient education and experience, applicants are expected to prepare themselves. Provided that

I personally want to become a software engineer for Apple, it is important to realize the steps

that need to be taken to reach this goal. In progress to reach this goal, preparatory courses must

be completed. Beginning with the requirement of holding a minimum of a Bachelor of Science

degree in Computer Engineering, I will complete the CS Online Program at CSUMB. This

program will not only help prepare me in terms of programming code, but also will teach real life

experience. Classes like this one, CST 300, is not necessarily a class that teaches programming

languages but instead, prepares students with the idea of teamwork and dedication. It is

important to realize that teamwork will become a major part of a software engineering career as

most projects require more than one person to be taken care of. Time management is also a major

portion of this educational goal as this program is completely online and is expected to be

managed wisely on each student's own time. Managing time starting in college will also benefit

software engineers in the future since every project will have a due date and nothing late would

be accepted. Getting used to this from now will definitely benefit one's work experience as a

programmer. The core programming classes required in this program will help prepare the

students for the actual coding required as a software engineer. These classes will not teach every

single thing, but they will knock the educational section down and leave the rest to the actual experience portion.

For the required experience portion in order to become a software engineer at Apple, there are big steps to be taken to accomplish this. A step that should be considered is to meet with people who have experience already. Talking to someone that already has the experience required can help give an idea of what they do and the steps they took to get there. Realizing that becoming a software engineer is quite competitive at such big companies like Apple is also fairly important because it will encourage students to notice that they need to find a way to stand out uniquely. Applying for internships for experience practice is a significant step so that one can feel the climate and environment of their future work field. Connecting with others with similar interests will also help prepare for encounters with future co-workers who employees will have to eventually work closely with. Obviously, experience is expected for this type of high profession and the education portion itself will not work on its own. It is important to do well in terms of education, but it is just as important to go out in the real world and apply for jobs. Even a starting job as helping troubleshoot will be a jump start to know what is coming up in the future. It is all about the dedication and commitment that one is willing to put forward in order to reach their goal of becoming a software engineer for a well known company like Apple.

One of many software engineering corporations, Apple stands out in its own way. Its main purpose of providing the best for their customers and nothing less is highly appreciated. Apple became what it is today due to the hard work and dedication put in by the founders as well as other major influencers that helped make the company run smoothly. It is important to realize that the company is not perfect, and there are bug fixes daily, but that is expected considering the

fact that technology changes and improves daily. It gets quite difficult to keep up with new trends

of customers and making sure that the software products being put out to the public are what the

consumers want.

Software engineering is a career that is ongoing and promising for the future based on the

fact that technology will eventually be the main source of daily life. Without software

engineering, there would not be any fun video games that kids grow up playing, online shopping,

or even online education and more. Programming takes a lot of focus and thought because one

simple mistake can possibly ruin an entire application. Education and experience are two major

points in software engineering that need to be taken in order to reach such a high level

profession. It also takes a major level of dedication and commitment to always produce the best

work possible to the public. A future software engineer should also realize that failure is bound

to happen, however should not encourage one to quit on their goals. Instead, it is important to

learn from mistakes and apply that knowledge to future projects. It is fascinating and exciting to

see what new will come out of software engineering in the future and what it takes to produce

such high level software products.

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