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<p align="center">Full Stack Developer Research Essay</p>

Introduction

Like many children and teens nowadays, I am attracted to the experience of video games.
My first "console" was a mere device called a LeapPad, on which I played educational children's
games. While the games were very basic, I thoroughly enjoyed them, which led to years of fun in
the future played across many Nintendo consoles. As I got older I developed ideas for my own
video games, which I wished to create. Therefore, I learned programming, and pursuing this path
has taken me to receiving education in Web Application Development at the Center for
Advanced Research and Technology, otherwise known as CART. While video game
development may still be out of my skill range, another possible career has caught my eye, that
being the Full Stack Developer. While I am currently planning to continue my learning pathway
in video game development, I would recommend everyone consider the career of Full Stack
Developer as the job outlook is increasing, there are various ways other than college to get
required job experience, and the daily duties are thoroughly enjoyable.

Career Duties

For those who enjoy critical thinking, teamwork, and multitasking, a Full Stack
Developer is a great career choice. For example, the duties of Full Stack Developers include
working with databases, coding, testing, and debugging features from both the front and back
end, as well as making sure the website looks good across all devices (An). Regardless of

experience level, these tasks all require a deep level of thought to solve problems presented by them. Each individual website creates unique issues throughout the development process, each requiring their own unique solutions. In addition to this, Full Stack Developers tend to work with other developers on the project team, and they help the whole group with their individual obstacles (Ravoof). Due to the fact that Full Stack Developers have experience developing both the visuals and servers for a website, they tend to be jumping around throughout the day assisting other developers. This requires high levels of communication and the ability to switch between tasks quickly, in order to help everyone to the best of their ability.

Work Environment

If one enjoys working on a computer in an office, the Full Stack Developer has the perfect work environment for them. According to Simmons, the day to day life of a Full Stack Developer is generally the same. They start off the day by going to a few meetings, and then spend the rest coding. Guevara, on the other hand, describes more detail of the environment. He explains that every day starts out with "stand ups", which are small meetings between developers where one shares what they are working on and their progress. The next task is to spend time replying to emails, which takes a decent amount of time out of the day. After this, there are more meetings to attend with other people in the company, before one can finally head back to their office to do some productive coding. This time is mostly spent refactoring or debugging old code, with new features only being implemented if time allows.

Important Qualities

People who are analytical, flexible, and creative tend to excel in the career of a Full Stack Developer. Terra explains how Full Stack Developers contribute to many different parts of the project, as they are constantly helping other developers. They must always keep a clear mindset, as

in coding they have to be able to catch the smallest errors. In addition to this, An describes how Full Stack Developers play a part in the design process. While their main job is to code the website, they also have a say in what the website will look like, so they have to use a creative mindset to build the most appealing interface for the user.

Education/Experience Requirements

Those who have years of experience in coding the front and back end would have the ideal experience to be a Full Stack Developer. According to Ravoof, while not required, one would have a higher chance of being hired if they have a degree in the programming field, or in computer science. It is also extremely important to have experience in both the front and back ends of web development. This requires a wide range of skills, including fluency in programming languages such as HTML, CSS, and Javascript, expertise in databases, and the ability to create server end applications. Terra adds more detail, explaining that learning is an important skill in Full Stack Development as well. Every day there is progress in the programming world, where new technologies and programming languages are released. Because of this, Full Stack Developers must be able to adapt to these new technologies and become proficient quickly, in order to keep producing the best product for their company.

Salaries

If one enjoys a higher lifestyle, the Full Stack Developer's salary easily supports it. According to Ravoof, Full Stack Developers average salaries will be between $79,000 and $108,000 a year. Deery goes into more details on the range, detailing that one's salary will vary depending on their experience level, preferred programming language, and industry. For example, junior developers can earn around $77,000 a year, while a senior developer may earn around $145,000 a year. In addition to this, the average yearly salary for PHP developers is

$94,000, Python developers earn $110,000, and Java developers earn $118,000. Lastly, the top 3 highest paying industries are Legal, Tech, and Finance. These industries yearly pay is about $100,000, $111,000, and $119,000 respectively.

Job Outlook

If one wishes for a job that is secure to keep growing, they should consider the career of Full Stack Developer. According to Terra, the job outlook for Full Stack Developers is expected to grow about 13% from the years 2018 to 2028. In addition to this, ever since 2015, jobs for Full Stack Developers have increased at an annual rate of 35%. Sugandhi provides an explanation for this growth, detailing that with the rise of technology in business, more developers need to be hired. Full Stack Developers are specifically more appealing, as it is usually cheaper for a company to hire one Full Stack Developer over both a Front End and Back End Developer.

Educational Institution Options

For those who enjoy having options to gain career experience without college degrees, a Full Stack Developer is a great choice. For example, Coursera, Udemy, and FreeCodeCamp are great options to learn programming. They contain a wide range of courses, detailing information from the basics of programming, all the way to advanced features (How to Become…). Other, more specific courses include the Udacity Nanodegree Certification and Linkedin Learning Lynda. These courses focus more on teaching back end technologies, such as databases, PHP, and Javascript (Top Ten Best…).

Conclusion

Seeing my position now, I am glad to have developed my love for video games early on. In progressing through the web development classes at CART, a future in programming seems inevitable. While I will first pursue game development, I would still be happy getting a job as a

Full Stack Developer. I recommend the career to many, due to the high chances of being hired,

the quantity of ways to be educated, and the interesting daily tasks that require critical thinking.

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