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# Game Development Research Essay

## Introduction

Since I was a child, I have had a strong passion for video games. My passion started when I was five borrowing my older sister's GameCube and playing it for hours at a time. As I got older, I tried more and more systems. I brought handheld systems to elementary school everyday and snuck into my brother's room to play on his Xbox 360. I was amazed by the different kinds of games one can find; I appreciated every one that I was given. When my brother moved out of the house, he gave me his Xbox and I have cherished it ever since. I loved playing games with family and friends so much that I wanted to share some of the joy that I felt with other people; that was when I began looking at game development. I would not recommend this job to everyone because it is a lot of hard work and playing video games is a different story to making them. I know the struggles a game developer goes through, and I am willing to go the distance for it. I personally love working extra hard on a project I am passionate about.

#### **Career Duties**

Those interested in pursuing game development must be familiar with the skills used every day in the profession. This includes being able to collaborate with a team in programming fluency as game development is not an individual career. Being able to work with game

designers and animators is a must to create a well polished product (Learn.org). Proficiency in modern game engines such as unity is also a much sought after skill as well as industry standard tools such as Git. Of course, one will need to be proficient in a programming language such as C++ or C# which ties into problem solving solutions for any bugs found during development. It is not too uncommon for a game developer to have knowledge in HTML, CSS, and Javascript utilized to create websites for the game company as (The Career Expert). Some developers may also be involved in the design and direction of the game, opposite to large scale workforces that separates tasks into divisions.

#### **Work Environment**

The work environment of a game developer is a passionate one. The workers have a strong commitment to their jobs and for the vast majority, love video games as a hobby outside of their job. According to Bay, teams regularly host meetings to check the progress of current projects and provide direction. The overall workload vastly varies as projects come and go. The game industry, however, is infamous for its strenuous demands on its workforce. This is most prevalent in larger companies attempting to meet quotas before deadlines as soon as possible. Thomsen sources that the vast majority of game developers work more than 40 hours a week with no overtime pay. This, while morally questionable, is legal in most states, so aspiring game developers may find themselves working long hours with little compensation.

## **Important Qualities**

As any job, there are certain skills and fundamentals that are to be known in order to be successful in the gaming industry. As stated before, diversification helps a lot in the work

environment. If one can program websites, help designer teams, and even brainstorm project ideas, they will be considered an even greater asset to the company they work for. According to Jordan, a game developer should not only strive in programming, but in design as well. This requires strong creativity and enthusiasm towards the craft. Similarly, Tokio suggests creating a strong balance when considering how a game plays. For example, accommodating various gaming platforms to create an equal environment while also maintaining the same level of enjoyment. This also applies to casual and competitive players, who have differing interests.

## **Education/Experience Requirements**

The daily struggles of a game developer are apparent, however, there is a requirement for a specific level of education before even approaching the career. According to King, in order to become a game developer, one must earn a bachelor's degree in a college course that involves programming languages used in the game industry. This does not necessarily mean someone would have to pursue a game oriented degree, but rather they may pursue a more general computer science degree while taking electives that relate to game development. However, getting a degree is only half the battle, as future developers will also need to make a big enough impression to step foot in the game industry. In "How to Become a Video Game Developer", the article states that young developers will most likely have to create their own game on their own time to showcase their skills and abilities when submitting an application. In some cases, developers prior to employment stepped foot into the industry through popular modifications of pre-existing games.

#### **Salaries**

Regarding the topic of compensation, game developer salaries are nothing to scoff at. The average salary of a game developer is roughly 90,000 USD, with the net range varying from 65,000 to 130,000 respectively. This is an impressive amount, but not without variable factors. For example, "Game Developer Overview" shows that developer salaries hugely depend on three main factors. Locations as states pay a different average, with the highest being in California. Years of experience plays a role as higher and lower positions in development teams affect pay grade. Lastly, the size of companies matter as smaller teams have drastically less pay than large scale organizations.

## Job Outlook

Not only are the salaries of game developers increasing, but so is the demand. As more and more technologies develop, game developers are being utilized in more fields than ever such as use of augmented reality in the workplace ("A Look Inside: 2022 Game Developments Trends & Forecast"). Cloud gaming and artificial intelligence may be potentially used in future titles as quality improvements. Stated in "Video Games - Job Outlook & Career Prospects", AI can be conjoined with modern gaming to create a more realistic world that feels alive. Additionally, games as a form of media has become a lot more respected over the past decades on par with cinema, literature, and theater. This allows coming of age stories to be applied to gaming, which can last lifetimes.

## **Educational Institution Options**

As stated prior, in order to become a game developer, you must receive a bachelor's degree in a programming related course. The most recommended to earn is a general degree in

computer science, as they are flexible in general. You can find computer science degrees in a majority of college campuses. Generally, California is the best place to practice game development as a large number of companies reside there and the amount of supported gaming programs found throughout the state universities are helpful for young developers. Two particular universities (The University of California - Santa Cruz) and (The University of California - Irvine) have excellent game programs that go in-depth about every responsibility of a game worker. These courses provide students with an opportunity to experience every duty of game creation, which includes game design and development. While a course made specifically for game workers is informing, those most dedicated to the craft would be able to make it with a regular computer science degree and personal study/growth.

## **Conclusion**

I am not sure if I would have discovered my love for video games if not for my siblings, so I am grateful for being able to experience what I consider a big part of my life. My overarching dream is to own and run a small game development studio and bring happiness to the next generation. Currently, I am in the process of pursuing that dream by taking courses akin to the field at the Center for Advanced Research and Technology (CART). I am dedicated to this and plan on going to a four -year university for a degree in software engineering. Like I said before, game development is hard work and takes time. Game developers may have to work years on a single game project for it to be finished. However, with a strong passion for the craft this may seem like a blessing in disguise.

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