## Seif Ibrahim

COMPUTER SCIENCE STUDENT · UC SANTA BARBARA

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## **PlayStation Hiring Committe**

January 10, 2019

PLAYSTATION INC. SAN FRANCISCO, CA

Dear PlayStation hiring committee,

I am submitting my resume and application for your consideration for the Software Engineering Intern position. When I learned of this opportunity, I felt compelled to send in my application. With my 5+ years of experience in C/C++ and Java, I am confident my skills will be of benefit to PlayStation's mission to build the world's leading entertainment platform.

Currently, I am a Computer Science Student in UC Santa Barbara's College of Creative Studies — a small class (of about 6 people) on an accelerated track through Computer Science curriculum and research. I am looking to gain work experience in Computer Science at PlayStation this summer. My interests range from game development to high-performance computing and cybersecurity.

My interest in computer science stemmed from a desire to build video games. Java was the first programming language I taught myself in order to write mods for Minecraft. In middle school, I worked on my own small games in C++ after reading several books on the topic. I have a good grasp of how Object Oriented code works in practice from reading and modifying the code for those games which are open source.

In high school, I worked with a classmate in my Web Development class to create an online platformer game, similar to Mario, using Javascript and PHP. With enough of the game completed, I wrote an AI player (also in Javascript) using Neural Networks which I trained through a neuro-evolutionary algorithm known as NEAT. The algorithm works by generating, mutating, cross-breeding and selecting neural networks based on their "fitness" in solving the level — very similar to evolution in nature. The player was able to learn by itself how to complete a level without dying with the only inputs being the map of the level, the destination it should try to get to, and the controls to the game. This project was very exciting when the computer was able to complete a level which is hard even for human players. I have always enjoyed working on game-related projects from the beginning of my computer science career until now.

With my technical skills and my deep passion for video game programming, I believe that I could quickly surpass your expectations as an intern at PlayStation. I urge you to take a look at my resume.

Thank you for your consideration.

Sincerely,

## **Seif Ibrahim**

Attached: Curriculum Vitae