## Hard Work

## Weekly Report 12/11/17 to 1/2/17

When people usually consider the notion behind "working hard", they often do not consider the extent of the phrase. For example, one person's definition of hard work may consist of staying up very late into the night while focused entirely on a project while another's might be to the extent of maintaining high grades. Despite this disparity, one aspect of hard work that remains constant is that a person's definition of itself changes over time. This winter break was one of those times.

Over this break, I primarily worked on my original work, and by primarily, I mean entirely. Having done the research component prior to the beginning of the break, I began my journey to start coding and apply the mathematics behind the project. In the process, I encountered many problems. For one, I did not anticipate the challenges behind creating an algorithm such as storing and accessing the different layers of a planet. Furthermore, my computer could not store a septillion, or  $10^{24}$ , objects, making it run out of memory, which is a fairly big problem. For the algorithm creation, a few hours of research lead to no avail and after a few days to think about its creation abstractly, I figured out a way to create and implement it. However, I am still facing the issue of memory, but since school is back up, I will be sure to ask my computer science teacher for assistance.

Although I did work hard over this break, my definition of hard work changed. Hard work isn't about spending a lot of time on a task or getting the highest rank, but rather, it is challenging yourself and pushing the extent of your capabilities. Although my original work was

seemingly complicated and difficult to make, ISM has taught me yet again that if I put my focus towards something, I know that I will be capable of creating something truly unique.

Until next week,

Sahil Jain