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Final Reflections on Stanford Pre-Collegiate Studies

I had the privilege to attend the Stanford Pre-Collegiate Studies program thanks to the Garwin Family Foundation. The program was virtually presented. Stanford Pre-Collegiate Studies has a purpose to help future generations of students grow as scholars and people through their world-class programming. The programs cover advanced subjects, offering students a chance to challenge themselves by diving deep into cutting-edge topics. The program had a variety of courses to choose from, and I participated in the “Introduction to Programming” course taught by Dr. Thana.

The Stanford Pre-Collegiate Studies is an intense two-week summer program taught by world-class instructors in unique and challenging ways. We had a two-hour zoom every weekday and an hour window after class to ask any questions. During the zoom, our teacher explained the material for that day by explaining everything deeply and going over examples. After class, we had three to five coding questions to finish before the next class. Our professor also gave us his email so we could ask him questions at all times.

The assignments I did during this program were not at all what I had experienced before. They were the opposite of the classic cookie-cutter programs I have seen before. Although the class is for beginners, we quickly progressed far beyond what I knew. We first learned many commands such as “print” so that our result would show when we ran the code, “input” so the user could enter whatever phrase, number, or word they wanted, and “if-then” statements so we could have different outcomes based on the user’s input. We then went as far as animations by making clocks, bouncing balls, and 3-D figures. In

other summer programs I have done, we learned these commands but never knew what they meant. It reminds me of memorizing formulas for math class without going in-depth with what they mean. Dr. Thana, my teacher, even went as far as explaining the parts of the computer and how computers multiply and divide. Using the crucial tools I learned, I made games that I had played as a child such as guessing the correct number and rock paper scissors. We even made a very challenging dice game. One key lesson I learned from the class that I haven't learned anywhere else is how to make a code efficiently. It is easier to sometimes code projects in a way that is very long but simpler, although there is usually a way to make the code shorter and a little more complicated. I was able to cut down my programs in half by coding strategically.

My experience with the "Introduction to Programming" course was incredible, but Stanford supplied another element to their program. Everyone selected another course to attend—Leadership, Global Competencies, or Health and Wellness. These courses were less intensive and focused more on growth and peer activities. I chose to be a part of Global Competencies, especially with all of the social injustices occurring in the world today. We had an hour-long zoom on the first day of the program where the instructor began to explain the meaning of Global Competencies.

The first activity we did was about icebergs. You see icebergs that jut out of the water, but it is much bigger below the surface. At the top of the drawing that we drew on a piece of paper, we wrote words people assume about us. Under the water, we wrote phrases that are not obvious or descriptions of ourselves people do not know.

The next time we had a zoom was about a week later. The main focus of that zoom was about the causes we care about such as climate change, police brutality, Black Lives Matter, nuclear testing, starvation in Yemen, and border detention camps. We placed into breakout rooms where we shared the causes we wanted to contribute to and how we could help. Global Competencies was so unique because of how many different people were there. My peers were from so many different countries and hearing their perspectives on issues was such an enlightening experience.

Before I began my experience with Stanford, I thought the course would be very standard and basic. I couldn't have been more wrong. I have been introduced to numerous new ideas and have learned much more than I thought possible in two weeks. The Stanford Pre-Collegiate Studies program has brought me so much joy and information during this strange time. I have been able to build a much stronger foundation of knowledge for coding thanks to the vigorous classes I attended.

Although I didn't have much experience with coding before I began this program, I now feel confident in knowing I truly enjoy coding and all of the trials and tribulations that come along with it. Not only have I learned immensely, but I have also met so many unique individuals from various places around the world with such different and similar outlooks on different subjects. It has been an honor to be able to participate in this course and meet my spectacular peers and teachers. Thank you again to the Garwin Family Foundation for making this entire experience possible and for allowing me to dive deeper into my newly found passion!