**6.  Think about an academic subject that inspires you. Describe how you have furthered this interest inside and/or outside of the classroom. (350 words)**

“Chemical engineering works like a game”.

That is what an employed process engineer, who was also my parent’s acquaintance, told me. What she said caught my attention. I asked myself, “How could a major like chemical engineering work like a game?” As if the engineer had read my mind, she explained that like a video game, you always want to achieve the best strategy to win the game. But getting there is not easy. You would find flaws and inefficiencies in your trials and would try to find a better solution.

Chemical engineering works in the same way because getting the perfect answer is not a one-time trial; rather, several studies and attempts are needed for optimal results. As a teenager who has played plenty of video games, this analogy got me interested in the field, which led me to ask various questions including: “What do you do on a daily basis?” and “How do you optimize an already running chemical process?”

Wanting to explore more about chemical engineering along with my affinity to chemistry, I joined a chemistry summer program from Covenant College, conducted many DIY chemistry experiments at home (particularly biopolymers), and went to online job fairs before I finally secured a month-long internship at Victoria Care Indonesia, a cosmetics company, where I learned the overall production processes from chemicals to their main products: cosmetics. Fortunately, I was still able to visit the company during the pandemic and gain an understanding of each process of the production from research and development, mixing rheology, emulsification process, and reactor design. My exploration didn’t end there. Along with friends who had similar interests in engineering, we started on a project developing a solar-powered power bank. This project has taught me engineering design, solar cells, and techno-economic analysis that would be useful in chemical engineering.

The thought of chemical engineering, since the game analogy, has never ceased to excite me. Every method yields a different result carrying its own flaws. And from these flaws, new methods will be implemented until perfection is reached. Just like a game.