Chemical engineering is a field with numerous opportunities. It has a wide array of career prospects ranging from bioengineering to pharmaceuticals, conventional to alternative energy, and many more. It is a combination of subjects that requires multifaceted skill sets.

From a young age, I had a wide range of interest. I’ve been playing both the piano and violin as well as participating in annual Royal ABRSM exams. I was a member of the Varsity Swim Team and the Set and Design Crew where I developed collaborative skills. I have also learned leadership through my experiences as Class Secretary and the Banquet Committee. Moreover, I actively participated in debates, such as the WSC Tournament of Champions at Yale University and MUN. However, my true passion and interest consistently points towards math and science.

As a student interested in math and sciences, I always challenged myself by participating in competitions, such as the American Mathematics Olympiad, and Science Summer Camps. The experiences gained from them enlightened me to realize the importance of both theoretical studies and practical applications of math and sciences. Throughout my academic journeys, chemical engineering has become a familiar term and, thus, started to appeal to me: it included not only the practical applications of mathematics, but also sciences, such as physics and chemistry, with a touch of economics.

Growing up as a child whose parents run a pharmaceutical company is also part of the reason for my interest in chemical engineering. My frequent visit to the manufacturing centers allowed me to witness – first-hand – the production of high purity and high efficacy pharmaceutical products from a well-designed, high yield processes. The whole design and manufacturing process piqued my curiosity. It aspired me to design such a process and to, one day, being able to run my own pharmaceutical company.

Enrolling in a summer science program at Johns Hopkins University during my sophomore year was my initial step. I explored the art of sciences and gained experience of working in the lab: I learnt how to deal with the academic and theoretical aspects of processes, which formed the basis of my future goals. The following summer, I participated in other programs to further explore my career path in chemical engineering. During this program, I attended several classes that would aid in my future studies as a chemical engineer: introductory courses in material balances, process optimization, and statistical process control.

I then started and designed a personal project using these knowledge: a small hygienic product business called Eurelia Co. The idea was inspired from my volunteering live-in and service trip experiences to several areas in Indonesia that lacked proper hygienic facilities, especially their shortages in hygienic products. Thus, Eurelia Co.’s mission is to educate the Indonesian people on the importance of natural hygienic products and fulfill the basic human rights to sanitation by donating hygienic products towards the people in need. Surveys were utilized to gain collective inputs in designing Eurelia Co.’s concepts. Extensive research was also performed via trial-and-error to formulate Eurelia Co.’s products: hand-sanitizers and soaps. I made sure that our products are natural-based products beneficial for the skin.

As a determined and self-motivated person, I strived to pursue a course that was able to challenge me and fit my passion. Math and sciences are the subjects that I enjoyed the most, particularly their practical applications. My experiences in the past few years have not only confirmed my conviction to study chemical engineering, but also drives me to develop the required engineering skill sets. Therefore, I intend to pursue a degree in chemical engineering and continue my higher education further to graduate school with the goal of pursuing my dreams: excelling in the field and starting a pharmaceutical company.