The word that best describes me is curious. Ever since I was a young boy, I have always been interested in the way machines work and the principles behind them. Thus, I have always enjoyed and been interested in science-related subjects such as mathematics and physics.

The study of math and physics has helped me refine my problem-solving skills and increased my theoretical understanding. Moreover, I was exposed to engineering subjects in high school where I learned how to operate simple machinery, which inspired me to deepen my knowledge in this area.

I began researching robotics after watching the movie Astro Boy, which explored robotics as applied to bio-enhancement and flight. Though unrealistic for the most part, current day robotics has proved otherwise. With robots like Jia Jia and Atlas, proving that it just might be possible. This was an eye-opener for me to a field that is relatively unexplored.

Jia Jia has the most human-like appearance of any robot, and the smoothness of Jia Jia's body motions and facial expressions is astounding. On the other hand, Atlas can execute difficult parkour moves, maneuvers, and acrobatics like a human. He can generate vast quantities of force using ratios of area and pressure from Pascal's theorem and is powered by hydraulic actuators; this whole idea fascinates me. This was the first substantial application of a concept I acquired while studying math and physics.

Robotics is in its very early stages and requires a lot of research and development to be on par with the likes of spacecraft or automobile engineering. It poses a fresh engineering challenge as it requires the synergy of fields like mechanical and electronic engineering. By studying this course, I hope to innovate in this field in a way that might aid in time management and the preservation of consumer quality of life.

I set out to identify the traits required for success after deciding to pursue a career as an engineer. In my research, I read about many great engineers such as Nikola Tesla, Henry Ford, and many others. I found that while understanding the theoretical knowledge behind engineering is vital to being an excellent engineer, having excellent leadership, communication and business abilities can be just as important. These qualities, in my opinion, are essential for a modern day engineer to succeed and create something that will be developed for centuries to come.

My school noticed that I naturally possess leadership qualities and appointed me to serve as the student council advisor, which, in my opinion, has helped me develop these abilities even further. Additionally, at my school, I just established a club for high school students. These students are educated about machinery and how it works and are interested in discussing it with their peers. My ability to present and communicate effectively has greatly increased as a result.

Looking back at Nikola Tesla, Henry Ford, and a host of other great engineers who have existed throughout our history, has taught me the importance and significance of knowing financial and business characteristics to have. As an engineer, I need to know how to expand my inventions so that they can reach the entire world.

Working in robotics can require an understanding of joint movement and body structure. While not the same, my interest in bodybuilding and calisthenics might prove useful in my studies later. I'm now launching a course for those who wish to practice bodybuilding and calisthenics to improve their physical and mental wellbeing.

It is my hope that the degree I earn from your university will be the start of a successful engineering career. In addition to my initiative and my foundational problem-solving skills, I am confident I can succeed academically. As a passionate engineer, I will capture any opportunity to expand my skills and excel in my chosen field.