



My name is Ryan Kwong, and my goal is to become a mechanical engineer. I would like to work at Google doing the designs for devices such as Google cars. I am currently a 10th grader at Dublin High School, taking Principles of Engineering. I also participate in hackathons as well as 3D modeling and design my own devices. To achieve my goal of becoming a mechanical engineer, I will continue to excel at these things, as well as take Computer Integrated Manufacturing(CIM) and Digital Electronics(DE). I also hope to attend the University of California Berkeley and major in Mechanical Engineering to continue pursuing my goal.

I have wanted to be a mechanical engineer since I was 11 years old when I enrolled in a robotics class. There, I was amazed at the complex tasks their robots could do. I enjoyed building a variety of machines using VEX parts to solve various problems. I learned the basic structure and rules for building a machine so that it would not collapse. I learned how to use gears to increase the mechanical advantage of my machine. This inspired me to create even more devices and strengthened my love for mechanical engineering.

Some personal strengths I have are perseverance and creativity. I remember one time when my robotics teacher asked the class to design a machine using limited parts. It was almost impossible to build a working machine, but I stuck with it and got the best working machine out of my whole class. I am also creative. In my programming class, most people created a game using the most conventional commands. However, I used a more abstract approach. Instead of calculating the values inline through parentheses, I used variables and arrays to store data which allowed me to incorporate more functions into my game.

Some important achievements of mine are obtaining my Autodesk Inventor Certification. The Autodesk Inventor User Certification is a rigorous test that examines your skill in 3D modeling using the application Autodesk Inventor. Not only did I pass the certification, but I also got the top score in my class. I also placed in the 99th percentile in the John Hopkins Center for Talent Youth SCAT test, an exam that observes your knowledge of subjects 3 grades ahead of you. This means I scored better than 99% of the students 3 years ahead of my grade level. I can program front-end applications using HTML, CSS, JavaScript and Python. Through these languages, I can make websites and other GUIs. In addition, I can speak B1 level Chinese Mandarin and Cantonese, meaning I can hold most conversations in an area that speaks the language. Academically, I am also proficient in math, an essential subject for an engineer.

While I am only a 10th grader, I have learned a few things about myself. This includes my love for mechanical engineering, where I enjoy designing and building devices with my own hands. I also am a very diligent and creative person. I am determined and can think of unorthodox ideas to propel my project.