My interest in engineering had always included many disciplines, however, the engineering of Mechatronics, has certainly caught my attention. This discipline is at the heart of all current technologies. Mechatronic engineers play a crucial role in increasing the efficiency of various utility systems all around us, making life more progressive and sustainable.

As I am an individual who is very keen on Maths and Physics, I looked no further; this discipline hugely involves problem solving, analytical thinking and creativity. Moreover, it is all about applying the principles of Mathematics and Physics and putting their theories into practical systems. As stated on my certificate, I have received school awards in both Maths and Physics annually throughout my school years. My online studies on Udemy included subjects like work mechanisms of cyclone separators, centrifugal pumps and plate heat exchangers.

I have adopted independent learning and, using Futurelearn and Codeacademy, I taught myself programming in Python. I applied my skills in projects and built two cross-platform GUI applications consisting of an image viewer and an internet-enabled movie application with the help of some online documentation. They improved my problem solving, logical thinking, and research skills. These required lots of patience and hard work as there were lots of bugs to fix.

As a grade 7 pianist who started off in a music school and became self-taught, my music skills developed through thousands of hours of practise. My participation in open days organised by Glasgow Piano City along with concerts and other school events like music cafe, has increased my self-confidence significantly. Music has sharpened my concentration, helped me strengthen skills such as organisation and time management and taught me perseverance.

My visit to the robots exhibition held by the National Museum of Scotland was very inspiring. The smart, interactive robots I saw sparked the idea of building my own simple robot, I ended up building my obstacle avoiding Arduino robot. This project required analysis, attention to detail and testing. I learned the techniques for constructing circuits, making connections and working with motors and sensors. My work placement at McTaggart Construction helped me to boost my soft skills and gave me deep insight into major engineering environments. It also helped me build relationships with experienced engineers and accumulate hands-on experience.

My participation in the National Play Day as a PEEK volunteer, and also in the Music Leadership program has given me important roles of responsibility that improved my leadership skills. My roles involved encouraging young children to play sports and helping them improve their music skills. I have also taken part in the NHS peer research, which focused on improving the youth health service in poor areas, it helped me develop communication and teamwork skills as it involved organising and carrying out interviews with people to get suggestions for improvement.

Football is my favourite sport, I have played for the Finnart football team and currently, I attend football sessions organised by the charity of PEEK. This sport has improved my team work skills, and taught me dedication and resilience through self-training.

As a student who has only been living in Scotland for 3 years, I have struggled with English and because of that, I tried to help students struggling with language in an after-school Maths club to improve their performance.

I am aware of the challenges we are currently facing, from climate change to space exploration. Engineers play indispensable roles in overcoming these challenges and improving lives. For me, having a good job is not enough, I want to make an impact and that is through engineering. After finishing my studies, I would like to work in the robotics sector. My hard work, skills and determination, make me the perfect candidate for this profession.