

I have always considered myself incredibly fortunate for being born into an era where I was able to witness my country going through a massive technological and economic development phase. As my home country of India rapidly modernised, the emerging businesses and information technology sector gave the people of my generation a tremendous opportunity and a massive drive to pursue excellence. Although my parents spared no expense to ensure I had equal opportunities to explore all possible fields of study, I always had a definitive inclination towards mathematics and technical subjects requiring comprehensive and critical thinking. Perhaps it was my childlike wonder or a natural proclivity towards solving complex problems that ultimately became the driving force behind my decision to pursue a career in engineering.

After deciding that I wanted to study engineering at a relatively young age, I started learning the fundamentals of mathematics, science, and technology. My next crucial step towards distinguishing myself from my peers was to utilise every single opportunity I had to gain practical experience with different types of machines and thoroughly learn computing. Offering more time and effort towards gaining a profound understanding of the basics of engineering allowed me to successfully compete with thousands of talented individuals and obtain the required score during my 12th-grade examination to further my studies in the engineering field. The fierce competition in my country that preceded undergraduate study was highly beneficial, for it helped me develop a tenacious and innovative mindset which are substantially valuable qualities in further academic and professional careers. My distinguished performance during the final year of high school allowed me to secure admission in the Mechanical Engineering program at Manipal Academy of Higher Studies. The first two years at the institute were a significant learning curve of my academic life, for I gained a more holistic understanding of the engineering field and slowly developed a mindset of innovation and forward-thinking, which ultimately led me to find my calling in the automotive sector.

Since the mechanical engineering segment included detailed studying of designs relating to motion, the automotive sector became a particular area of interest for me. The more I dived into the world of engines, processing and manufacturing, the stronger my desire became to actively participate in that field. Moreover, studying the automotive sector also provided me with the opportunity to gain an advanced introduction to data analysis and computing. By this point, it had become explicitly clear that computers and artificial intelligence would soon become an indispensable part of significant industries and gaining expertise in these areas was the key to building an innovative and distinct career.

As my fascination with the automotive industry proliferated, I decided to complete the remaining two years of my undergraduate studies in the United Kingdom to gain a profound understanding of the technological developments within the automotive industry. While the initial two years of my undergraduate studies primarily focused on the mechanical aspects, the final two years concentrated on gaining an extensive understanding of the technological revolutions underway in the automotive industry. I realised that in time, as vehicles become fully autonomous, the entire vehicular infrastructure would depend on effective data analysis and machine learning, making data science an essential and versatile area of study. Even at present, the colossal amount of data that is being extracted and utilised from vehicles' sensors and used in research and development ensures that expertise in data science will be an indispensable commodity in the near future. Therefore, after completing my Bachelor's in Mechanical Engineering, I concluded that studying Data Science for my post-graduate education would be the next ideal step towards building a successful career in the automotive industry.

As I have dedicated more time to understanding the fundamentals of data analysis and its application in improving the efficiency of modern vehicles, I have been able to fully realise the massive growth potential in my own country's automotive industry. Since India is one of the most densely populated countries in the world and is modernising at an exponential rate, the demand for transport will only see a titanic increase. Furthermore, since the transport industry in India is still in its infancy compared to advanced nations like the United States, United Kingdom and other European countries, the nation experiences an abnormally high rate of accidents every year. As a result, my ultimate aspiration is to use my knowledge to help my country's automotive industry by developing programs that will utilise autonomous driving technology and highly advanced sensors and data analytic tools to significantly aid driving, thereby resulting in a safe and secure transport network across the country. Furthermore, as the regulations on internal combustion engines become more and more stringent and the world makes a transition towards electric vehicles, the culmination of my mechanical engineering knowledge along with expertise in data science would allow me to be at the forefront of innovation in the electric vehicle sector and contribute towards making more efficient automotive technology.

After much careful consideration, I concluded that pursuing my post-graduate education in the United Kingdom would be the perfect step forward. Since I have already studied for two years in the country, I am well familiar with the overall environment and study curriculum, which I am confident will allow me to perform considerably well in my academics. Moreover, since the United Kingdom has a prosperous automotive industry dating back over a hundred years, it would provide an excellent opportunity to work with world-leading automobile manufacturers, thereby providing valuable work experience. Ultimately, a Master's degree in data science from one of the prestigious institutes in the United Kingdom, in tandem with my engineering knowledge, will provide me with the skills required to stay at the forefront of innovation by working with new technology and utilising complex computing, analysis and machine learning tools to design better, safer and more efficient vehicles.