

Why I Want to be a Professional Engineer

Akshay Sridhar

Ask a ten year old what he would like to be when he grows older, and it is highly likely that the answer has a lot to do with his parents' professions. As a child, the most likely reason I would have considered becoming an engineer is because of my father, who has been an engineer for over 25 years now. However, over the years, I have come to believe strongly of my own accord that a career in engineering is in fact the right choice for me.

One of my favourite quotes is from a Calvin and Hobbes (by Bill Watterson) comic. Quote Calvin: *"I'm a simple man with complex tastes."* Engineering is a discipline that incorporates the simple, well-established principles and the more complex, challenging aspects of science and maths. The way I see it, engineering involves using these simple scientific principles to design and create the most awe-inspiring, useful and advanced machines, buildings and technology. This is one aspect of engineering that I find highly appealing. I have always enjoyed challenging my own creativity and skills; challenging one's own skills and abilities is the best way to gain new skills and improve old ones. In my opinion, the best way to express one's passion for anything is by using one's creative outlet to gain a better understanding of the more complex elements. Studying engineering offers career pathways which will allow me to integrate efficient and functional design with aesthetic features in a variety of situations, and this sort of versatility is one of the reasons I want to pursue a career in engineering. Creativity not only applies to the visual, aesthetic aspect of any design, but also to the basic idea, the vision that allowed the design to be thought of in the first place. Engineers often have to devise unique methods to solve problems of varying complexity which have major implications for the general public – this is another aspect of engineering that I look forward to.

Besides the fact that engineering encourages lateral thinking, it also ties together my interest in mathematics and science. I have always achieved good results in maths, physics and chemistry; this reflects my level of interest in these subjects. I have worked hard to achieve a sound understanding of the concepts involved in these subjects. The satisfaction that comes with understanding these subjects well has sparked my curiosity about their applications in real life. Studying engineering at university will allow me to turn my interests in science and mathematics into a more concrete qualification that will allow me the opportunity to explore a number of important issues in science and technology that the world has to offer.

I am very passionate about pursuing a career in the aerospace/ aeronautics industry. Airplanes and space vehicles have always drawn my interest, mostly because of the intricate detail and precision that goes into designing these machines for a uniquely different environment. The aerospace industry uses some of the world's most sophisticated technology, and the prospect of working to help develop new systems in this industry excites me. My trip to the International Space School (currently United Space School) in 2007 has certainly helped reinforce my desire to study engineering. At Space School in Houston, Texas, I had the chance to interact with top engineers and employees in the space industry; this gave me a great insight into the commitment and passion that goes into their work.

Sometimes people are sceptical about the benefits of engineering and research in space. One only needs to look at the wide range of spin-offs that have resulted from development in the space industry – TV satellite dishes, medical imaging, smoke detectors, cordless tools and cataract surgery tools are just a few of the items we use and require nearly every day. A career in engineering will not only allow me to follow my interests and aspirations, but it will also permit me to contribute to society in a positive manner. The nature of the discipline means that engineering developments invariably help the general public.

Even if I choose a different field of work in the future, I will benefit from the skills that I will gain from my university degree and will be able to apply them to other engineering projects. My father received his B.E in Electrical Engineering 27 years ago. Since then he has worked in the coal, steel, oil and gas, petrochemical, manufacturing industries and on

projects involving industrial pollution control. This shows that with any engineering degree, the job prospects are far from being restricted.

I have applied to enrol at the University of Canterbury, and I plan to complete a B.E (Hons) in mechanical engineering. I am certain that I want to complete a mechanical engineering degree, as it would equip me with the skills and knowledge required for a career in the aircraft/ space industry. I also plan to complete post-graduate education to specialise in my chosen field. The degree would also have a wide array of applications in other related industries as well. Despite the available options in terms of career pathways, a job in the aerospace sector would be a very satisfying one for me, as I would be doing something that I really enjoy. And looking at the number of spin-offs that have come into being as a result of work in that field, there appears to be no limit to the number of life-changing gadgets that can be developed.

Engineering appeals to me because of the challenges it presents. The current global situation means that innovative thinking is necessary, and coupled with a sound background in engineering knowledge, I think this would make an excellent career for me. I will thoroughly enjoy this field of work because of the unlimited opportunities it offers – to extend my skills and knowledge in the field of engineering and to help equip people with the latest technology - improving our living standards as a result, whether it involves better transportation/communication systems or energy efficiency.