

Aerospace engineering personal statement

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Aerospace engineering has become empirical since its revolution, with some theories and skills introduced from other branches including Maths, science and computing. My passion for this field equates to a combination of the fields mentioned above. A team of modern technology, the laws of physics and thorough mathematical calculations have allowed aeroplanes to tackle conditions such as high air resistance, atmospheric pressure and freezing temperatures. This has encouraged me to conceive life-changing ideas. For instance, what if aeroplanes had magnetic landing gear and thus have the ability to land on a magnetic runway, similar to the technology used by Maglev trains, to reduce friction. Or what if aeroplanes had a carbon-neutral way to refuel to help prevent the release of any harmful gases into the atmosphere. This has also motivated me to take this course at university and help develop an understanding of this fascinating field.

Having excelled in Maths throughout the years, I have been invited to a number of lectures particularly in University College of London where illustrious lecturers elaborated on unsolved mathematical problems which apply to the real world. These lectures included the answers to what is the algorithm for bird flying patterns, how does a chocolate fountain work and what is the maths behind juggling. I have also identified how statistical and analytical skills can be vital to aerospace engineering. For example, in the most critical situations, one has to work out where all the consequences of failure are and find the best and safest solution to the problem. Studying Physics has enabled me to understand its application to engineering in general. A visit to Switzerland's CERN and its Large Hadron Collider has developed my understanding of how a particle accelerator works. Especially

how physicists judge what conditions are needed for particles to reach high speeds close to that of light. This can be related to aeroplanes and how it could achieve comparable triumphs. Studying Chemistry has enabled me to take part in talks in Cambridge University where material science has sparked my interest. Learning about the Young's Modulus and thermodynamics at an atom's scale has allowed me to see the linkage between the two. This eventually led to my decision of taking an engineering subject as a university degree. Furthermore, I participated at a forensics workshop known as ' Dead on Time ' which included crime scene analysis, fingerprinting professionals, DNA fingerprinting, toxicology, investigations and reconstruction. The skills are required to solve a murder case with highly sophisticated forensics equipment. Teamwork was a vital skill as participants had to work together under limited time conditions in order to be able to evaluate the case and identify the suspect.

Computer science is another skill essential to the engineering industry. In this day and age computer systems have exponentially spread on a global scale specifically the aerospace industry where autopilot and control towers have fuelled my interest. Studying computing has enabled me to translate the language of the computer otherwise known as binary and know how omnipresent it is in a single computer system where its codes make up text, images and sound. Additionally I now have the ability to convert it to its equivalents, denary and hexadecimal. My innovative application designs have been presented in a project where university students are allowed to book computers in a university library. This application also has a receipt function that requires the student's email. Being noticed for such creativity, I

was invited to a ' BAME student day' workshop in Microsoft Reading Campus to take part in an application design competition. This competition was about participating in a team to brainstorm ideas about things that could change people's lives. A visit to Bletchley Park, home of the WWII codebreakers, provided me with valuable information of the enigma machine and other primitive computer systems.

From my perspective, aerospace engineering is the perfect blend of all these fields which makes me look forward to studying it at university and help prepare to become a chartered engineer.