

## Personal Statement For University Admission

My desire to study Engineering stems from the practical application of Maths and Physics to real world situations to enhance and improve them is a field that I find fascinating and perplexing. After partaking in different engineering-based experiences, I learnt how varied and inclusive this subject is, and that is the reason I want to study Engineering at University.

Following work experience at the Centre for Life, I realized I was particularly drawn to its Physics branch. A major part of my experience was talking about STEM topics during the workshops we held for young children; helping to teach Physics principles amplified my passion for learning and teaching how the world works, and this increased my communication skills with individuals of varied ages.

Taking part in the Engineering Education Scheme gave me the opportunity to experience working as an Engineer, as well as achieving the Gold CREST Award. As a team, working with Walker Filtration to investigate an alternative method of attaching their end caps to their media cartridge allowed me to work with equipment (such as an optical pyrometer) not accessible in school. From the Residential held at Newcastle University, a vital aspect I took away from this experience was carrying out experiments after a vigorous researching and planning process. Working on a practical scheme allowed me to understand the importance of project management, teamwork and commitment – skills that cannot be gained solely through A-Levels.

I have participated yearly in the UKMT Maths Challenge, which has increased my ability to think logically in order to solve mathematical problems. From this, I have achieved two silver and two bronze certificates, as well as coming third in the Regional Final of the UKMT 2013 Team Maths Challenge. I have also attended Maths Inspiration Events: most recently in which Rob Eastaway presented “Zequals”, a concept where approximations are often preferred when dealing with very large numbers. However, my interests are not simply limited to Maths; I have attended various lectures, one being a ‘Physics in Perspective’ lecture where Dr. Kate Lancaster presented her work regarding building stars on Earth. After attending these lectures, a topic that particularly resonated with me was the idea of a sustainable future. I am aware there is currently a global issue of a growing population, yet resources is declining, and this is something I would like to explore further, particularly alternative energy sources to non-renewable resources such as crude oil. Moreover, I have participated in the RSC Schools’ Analyst

Competition; here I learned how to apply practical skills in a lab and work with substances such as aspirin and analyze their chemical properties.

I took part in the National Citizen Service where, as a team, we worked to complete a project to help refugees in the local community. This experience taught me the importance of teamwork and being the leader of a group when necessary. Currently, I am working towards my Gold Duke of Edinburgh Award. Objectives, such as planning routes and meeting deadlines, strengthened my collaboration skills, time management and organization. For my 'Skill' section, I completed a 6-month online Cambridge Computer Science course, which developed my independent and extra-curricular learning and enriched my wider knowledge of technical processes.

My ambition and desire is to explore the world of numbers, by analyzing current STEM issues and researching ways to overcome them. This, along with the transferable skills that I have gained through my experiences, makes me ideal for studying Engineering at University.