Personal Statement

Frequently, maths is seen as somewhat conventional, or as a subject having been made up; however, in my opinion this remains only as a conjecture. In fact, mathematics is something that binds the universe together, using theories that are unquantifiable even in theory to solve major problems in the real world. Therefore, the applied side of mathematics, like mechanics, physics and statistics, has really captured my enthusiasm. The idea that a subject can be so diverse whilst having immense possibilities is quite simply remarkable. Throughout my journey into the subject, my curiosity has driven research into different areas of maths. Being part of a community like Exeter Mathematics School has also inspired me to develop my understanding and knowledge over a range of topics, where my interests are absolutely supported and furthered by peers. During my time at the college, I have undertaken numerous mathematical projects to discover and research practical applications of maths far beyond the scope of A-Level. As a small group, we researched into the Fourier Transform and Series, incorporating advanced mathematics and programming knowledge to finally present at Exeter University in front of over 600 people, consisting of lecturers, students and members of the public at the Christmas Lectures. Without question, this further developed my confidence and clear communication skills in presenting, through collaboration and the experience of working as a part of a team. Another project I chose to undertake with a small group of other students was 'Vectorising Raster Charts', which was undertaken in association with the UK Hydrographic Office (UKHO). With copies of their globally distributed charts, our task was to vectorise these images that had been initially hand drawn over several hundred years ago, so that the charts could be digitally analysed. We later presented our results in front of a panel of UKHO managers, who were able to use our program for their purpose in industry. Moreover, I have studied several online modular courses set by universities all around the world. These courses have improved my general knowledge of mathematics, from aspects of history to deriving proofs. They have provided a great deal of challenge, especially as a solo endeavour, and really developed my perseverance and commitment into solving, and more importantly, understanding fully the solution to problems. The modules gave a great variety, from Thermodynamics in Energy Engineering by Hanyang University, which I am currently studying, to Linear and Quadratic Relations by the University of New South Wales, which I studied over the summer. I believe programming is becoming much more prominent in mathematics, particularly for its applications and modelling concepts. This is why I am presently learning C , building on my knowledge of Python, to benefit my current venture into programming virtual reality. This is something essentially independent from maths but has recently taken my interest into developing a deeper understanding. I hope that in the future I will also get the opportunity to learn more maths-based programs like MATLAB and R. Away from academia, I have played hockey for over ten years, representing my college and county, as well as playing in several leagues for Ashmoor Hockey Club. For the past two years, I have played in the Under 18 Indoor National Finals for England, qualifying as the best in the South of England in 2015 and then as second in 2016, and am currently training to achieve the same again in the new year. Therefore, I find the physicality of the training and matches really offsets the mental exertion of study. As an individual who is always keen to learn, advance my knowledge and loves challenges for their rewarding nature. I see no better place than at university to test and, ultimately, push the boundaries of what is fundamentally known in maths.