Why do I want to study maths? In a world where there are so many questions that don’t have an answer, and where there are many things that are simply out of your control, I feel like maths goes against this. It makes it seem like there’s always a solution to every problem, one way or another, and if you can’t find it, then maybe you can approach it differently to find a solution; so, mathematics as a whole has always been a favourite of mine.

I attended the Winchester Maths Summer School and although initially very nervous, it was definitely an experience worth having. Not only did I work with people who were able to challenge and push me further with various maths problems beyond my usual syllabus, but I also was able to rediscover my love for maths in real life, whether it was creating 3D structures with various different polygons or learning about the use of maths in the gold trading market from visitors. It was very eye-opening, showing the different types of applications of the subject I love. The vast array of complex, new principles like Fermat’s Little Theorem or the Black-Scholes Model really opened my eyes to how much I didn’t yet know and how much I still wanted to learn so I began to read further into maths like “The Irrationals” and “Gamma”.

My work experience at Marston’s PLC was data science based and it was something that I had never really thought about prior to this. Working in their IT team, I learned about the process of extracting data from tills, receipts and forms, and processing it to create graphs, charts and reports for analysis. The latter interested me, so at home I downloaded Power BI to practise taking data from past Premier League and Formula 1 seasons and using my own filters, created my own reports. The Siemens and Channel 4 virtual work experiences which I completed this year helped me gain an insight into other applications of maths for example one of the modules covered was ‘Consumer Insight’. I was tasked with analysing data and creating graphs so I could identify different trends to answer a series of questions about decisions that the business could make. I’ve also completed various different subject spotlights, such as ‘Is mathematics the key to building the perfect race car?’, which taught how graph theory is used with factors that could affect a car’s aerodynamics to create estimability graphs as an introduction to mathematical applications that can go behind designing an F1 car, which was really enjoyable to work through. All of these experiences have been beneficial in showing what a career in mathematics can bring me.

I was also allocated a Nuffield Research Placement at Robocode UK which offer Robotics and Game Development courses to children and during my 2-week placement I learnt how to code robot cars, games and websites so when i was tasked with doing a project there i was well prepared and it was very successful whilst always being incredibly enjoyable. I also created a website using the skills from this placement for this application where there is also the 20-page Research booklet linked to it which I was tasked with from Nuffield. <https://ls1717171717.github.io/portfolio/>

I’ve also taken part in various maths challenges, all of which have been challenging but enjoyable; most importantly, they allowed myself to push outside the spectrum of the normal syllabus and really challenge my understanding and knowledge of a different kind a maths, something more problem-based with more outside-the-box thinking. Whether it was qualifying and getting a merit in various Kangaroos, or achieving gold in the various challenges, achieving this kind of success is something i can be proud of.

Outside of this I’ve taken part in NCS, where I learnt the importance of working as a team and raising money for charity whilst meeting new people and developing soft skills. I was also a Chinese and STEM mentor in Year 11 and 12 where I assisted younger students alongside my studies, and helping out at my dad’s garage, improving my time management skills. Co leading GO4SET, a DT based project, and achieving a Bronze CREST award, tested my ability to create and design solutions to a certain context and being an influential member in the group successfully.

To conclude, I would love to study Mathematics or Data Science at university because of my interest in the subject, and my desire to pursue a career in a related field. My dream has always been to work in a Formula 1 team, specifically for Ferrari, who I’ve loved since 2015. Although I’ve had a slight interest in engineering, a more mathematical approach, whether as a Data Scientist or even a Strategist, appeals more to me - the latter caused by painfully watching the poor decisions Ferrari make on a regular basis and wanting to do something about it.