In the summer of eighth grade, I stumbled upon the realm of quantum computing and was immediately hooked by its completely different approach to computing and its exciting applications. Eager to learn more, I signed up for an enrichment course taught by Professor Terrill Frantz and Alex Khan of Harrisburg University, where he covered the basics of quantum computing, from entanglement to basic applications like the knapsack problem. I continued to work with Professor Frantz over the course of 9th grade, where I learned and applied quantum algorithms such as Shor's factoring algorithm, or Grover's search algorithm. Due to my performance in these courses, I was invited to intern at a research project mentored by Professor Terrill Frantz, in collaboration with quantum cryptography startup QuSecure and AWS Braket, where we tested the limits of Shor's factoring algorithm and a reverse-multiplication circuit. As an intern, I was able to gain valuable insight into teamwork in a professional setting, as well as the norms of a research-based environment. Our goal was to test the limits of Shor's algorithm and to attempt to implement an efficient reverse multiplication circuit for the same purpose. This culminated in my publication of the Medium article "Coding Logic Gates on the D-Wave Quantum Annealer", where I detailed my contribution to the project. After this, I published my findings from this research project at the IEEE Integrated STEM Education Conference as a poster. It was selected to be presented at the leading conference. Intrigued by the field of quantum cryptography which I had explored through the quantum research project and my poster publication, I applied (and was accepted) to QSYS at the University of Waterloo. In this in-person enrichment program, I would be able to work hands-on with quantum hardware and hear from the leading researchers in the field. I attended QSYS, and gained valuable information about quantum mechanics and cryptography, allowing me to gain a deeper understanding of the code I had written in the past.