Since childhood, I have harbored a strong interest in numbers, as evidenced by how quickly I could memorize phone numbers and then decompose them into prime numbers, just for fun. Over the years, the allure of extreme logic and precision in math has always captivated me as my comprehension of it gradually matured.

Upon establishing a solid foundation of math knowledge through years of studies, I eagerly sought opportunities outside the classroom to apply my theoretical knowledge to real-world practices. For instance, I creatively applied knowledge of the Lagrange Point to calculate the proper position of the perigee during the Space City Competition, hosted by NASA. By employing mathematical modeling concepts, such as potential functions and integration methods, I successfully led our team to finish the space city project with high quality.

My exploration of the math world continued as I ventured into the challenging realms of data science by collaborating with my classmates on a case study about the identification and categorization of coins using AI and machine learning theories. From understanding processes of data collection and classification to building CNN (Convolutional Neural Network) models using Python, I marveled at the magical power of the underlying mathematical principles, and my curiosity was further piqued.

Furthermore, discovering the significance of applying matrix-related knowledge to solve real-world problems through my data science project inspired me to shift my attention to a brand new area: exploring the correlation between math and finance. Such an idea was spurred partially by my father’s influence since he was a fixed-income trader. To satiate my academic curiosity, I tried to utilize filtering methods to remove the feature of seasonality in predicting prices for government bonds in an effort to increase accuracy. In this self-learning process, I further realized the pivotal role of mathematics in financial trading.

Looking back, I have strived for great academic achievement in years of exploring the world of math, and the sense of fulfillment that arose from overcoming each academic challenge was beyond compare. It has ignited a burning fire in my heart, which will surely guide me in my future studies.