

I chose my undergraduate major in Mathematics with an emphasis on Financial Mathematics and Statistics because I have always been fascinated by how mathematical concepts and formulas are created and how to apply these to real-life problems. I am specifically fascinated by applying my mathematical knowledge in finance and data science. Therefore, my goal is to be a certified actuary, which involves math, finance, and statistics. This career path aligns perfectly with my passion and allows me to contribute my analytical skills to the dynamic field of actuarial science.

I was involved in an Undergraduate Math Research Project (REU) at the University of North Carolina Charlotte. My partner and I focused on harnessing the power of machine learning techniques to enhance and optimize the field of personalized medicine. This project conducted extensive simulations using R and explored various statistical learnings to find the optimal treatment based on individual characteristics. Currently, my partner and I are finding the best method to deal with the curse of dimensionality. Additionally, I am currently involved in the KENO project. My role is to understand the calculation and code out the simulation of the KENO game. My primary goal is to contact other states on mislabeling the odds of winning and publish manuscripts on our findings. Lastly, I am currently involved in the Math Direct Reading Program, and this is my second time presenting my math knowledge to math enthusiasts. Previously, my project uncovered the proof of The Black-Scholes Model. I also got to present the usage in a real-world application. This semester, my topic is Topological Data Analysis.

These extracurricular experiences allowed me to expand my knowledge outside of the classroom, and the Research Experience for Undergraduates (REU) provided a unique opportunity to immerse myself in the life of a graduate student. The REU not only deepened my understanding of statistical research but also fueled my passion for advancing in this field through higher education. In addition, I aspire to become an actuary, and my undergraduate academics have been the key to me successfully completing two actuarial exams in a single semester. My goal is to pass six actuarial exams before graduation and obtain an Associate of the Society of Actuaries (ASA) before the completion of my graduation. These experiences shaped my commitment to excellence in both academics and professionals.