It is my ambition to complete a graduate degree in theoretical physics and to pursue a faculty position at a leading research university.

As a freshman at the University of Colorado I took a class (honors Physics II) for which the final project was to select, solve, and present on a problem from the Rudolf Ortvay International Competition in Physics. This experience revolutionized the way I perceived physics and consequently induced a change-of-major form: the textbook hadn’t solved my problem with different numbers, there was no formula with which it would be immediately solved, and I certainly couldn’t assume that I already had all of the base knowledge to solve it. My persistent questions “yes, but why?” that found little solace elsewhere resonated with the department of physics, as I struggled to find both the ‘yes’ and the ‘why’ for a question that was far beyond the scope of my formal education. It was the most invested that I had been in anything to date, and it was the greatest.

I am excited about the applicability of modern computing power to long-standing open problems in theoretical physics research.

My research experiences and coursework have inspired my interest in the physical relevance of pure mathematics and continue to embolden my curiosity and drive for a career in theoretical physics research.

It was my first realization that science was a deeply creative endeavor, and I finally got the opportunity to try my hand at a problem to which there was no straight-forward answer.

The summer after my freshman year I accepted an REU fellowship in Montana State University’s department of Electrical and Computer Engineering to work with Dr. Joseph Shaw.