My name is Connor Briggs. I am applying for the doctoral program in chemistry and hope to study under doing . My goals in completing this program are to continue advanced study in chemistry, participate in research opportunities, and to continue my growth in the discipline and as a person. Ultimately, I hope to go on to find a teaching and research position.

I have a lifelong passion for science. I also have a strong passion for math and computer science. I studied advanced mathematics through Numerical Analysis, and am proficient in several programming languages including Fortran, C/C++, and Python. But Chemistry is my one true passion. When I was in 4th grade, I participated in a summer Chemistry Camp at a local university and have been hooked ever since.

I recently graduated from Virginia Tech with a B.S. in Chemistry and a Math minor. I remember walking into the theoretical chemistry lab at Virginia Tech and seeing the wall-to-wall equations describing chemical properties, and knew I found my new home. My first semester, I started working under the direction of Dr. T. Daniel Crawford where I was able to apply my background in mathematics and computer science to quantum chemistry. We worked on developing machine learning models to predict properties based on contracted coupled cluster amplitudes and improving Psi4 and QCArchive. I also participated in a more traditional laboratory environment under the direction of Dr. Joseph Merola to study thiophene ring opening reactions caused by iridium. I assisted several Ph.D. students carry out their research through which I gained valuable experience participating in a research group, carrying out research projects, and publishing results.

Although research and publication are important to me, I found that tutoring others is deeply satisfying for my desire to share my knowledge and passion for chemistry. The joy of teaching and helping others together with the challenge and excitement of research have shaped my future path to becoming a professor.

My first semester at Virginia Tech, I struggled to get acclimated to college life. This resulted in me receiving low grades. These low scores have been constantly pulling my GPA down. However, I believe my transcripts will show how much I have improved since then. As a better indication of my academic performance, I would offer my GRE scores or my research experience. My GRE general scores were stellar, except for analytical writing, which is a topic I have always struggled to do in exam settings and is far removed from technical writing. My chemistry subject score was also amazing, placing me in the 74th percentile of test-takers. As a testament to my research capabilities, I was awarded the ACS Undergraduate Award in Inorganic Chemistry.

Personally, I am a dedicated community servant. I am an Eagle Scout, earned the Summit Health President's Award for Service, and have completed numerous other public service projects. One of the most important of these endeavors to me is my activity in the community meal program where I help prepare and serve meals. I also have several hobbies, including playing music, studying different languages, and recreational math.

Ultimately, throughout my struggles at Virginia Tech, I had to learn how to stand strong against headwinds and I believe the growth shown in my transcript reflects that. The most important lesson I learned is that it is often necessary to ask for help and communicate with my professors and fellow students, and to be successful as a group rather than failing on my own. I am passionate about chemistry and strongly believe that, given a chance, I will work every day to prove that I am worth that chance.