

My name is Matthew Belzer and I am from Staten Island, New York. I am a physics major at Stony Brook University. Ever since I was a child, I was very interested in science and I read many books about science, especially about biology and space. In high school, my passion for learning about physics expanded after I took AP Physics 1 and AP Physics 2. I liked how physics quantitatively describes natural phenomena. I was also involved in three research projects in high school: a psychology project, an organic chemistry project at the College of Staten Island, and a computational astrophysics project at the College of Staten Island. To do the astrophysics research, I taught myself how to do calculus and how to write code in Python. My organic chemistry project was published in the Columbia Junior Science Journal and the astrophysics project won my partner and I third place in the New York City Science and Engineering Fair. I really enjoyed doing research in high school because I like solving difficult problems so I can learn new and interesting things.

Since I liked my high school research experiences and physics classes, I made sure to join a physics research group as soon I got to Stony Brook. I joined the Metcalf group, where I have learned a lot about optics and data analysis. I have successfully built a Michelson Interferometer to measure the width of microscope slides and to find the index of refraction of air. Currently, I am working towards understanding the Hanbury Brown and Twiss experiment so that I can replicate it in the future.