## **Statement of Purpose**

The two things I enjoy the most, are learning how something works on a fundamental level, and getting the chance to help someone. I grew up, spending my entire childhood telling myself I would become a doctor. Of course, I realize now that's not what I want, but I still want to help people. Continuing my education at UNB allows me to satisfy my undying need to keep learning. I've been fortunate enough to secure a job working for Dr. Ben Newling in the summer of 2019. Throughout that summer, I realized that MRI was really an amalgamation of a handful of things I love. I love learning, helping people, and working with my hands. While the research I do may not directly help someone, my aim when designing and working on new projects is that someday the product will help the general population.

I've always been an active part of the community I involve myself with. I have experience working in a team environment, from managing the Physics Society at UNB, and participating in CubeSat NB, New Brunswick's first cube satellite. My relevant experience in MRI comes from my first summer research position, with Dr. Ben Newling. Over the course of two months, I reconstructed the 3D magnetic field plotter that is still in use in the lab. I also constructed a radio frequency coil to be used in an experiment performed using magnetic resonance to measure flow velocity. This experiment would continue as part of my honors project. I have taken the MRI course at UNB, which has aided my research as well as giving me a greater appreciation for magnetic resonance.

I want to pursue this degree because I love helping people, and I love learning. I feel that MRI gives me the opportunity to learn so much about a field that I appreciate, as well as indirectly help people. I expected a sense of finality once I completed my undergraduate degree, but instead what I feel is quite the opposite. The feeling I have now, is the same feeling I had at the beginning of my undergraduate degree; a sense of excitement at the knowledge you'll gain. The honors project gave me a chance to learn a fragment of a very large field, and a passion to pursue more education. I'd like to have the opportunity to learn more about MRI and physics.

I feel this degree will aid me in my pursuit to find a career in research. I would like to continue working on difficult problems after my degree, and I believe this will give me the qualification to do so. I would ultimately like to be on a career path that is involved with helping the population. Since the field of MRI is heavily involved in biomedicine and medical devices, I believe this degree could allow me to find a career that is aligned with my morals. I know of no better place to study MRI, than here at UNB, and I would love to continue my education at a school that can teach me a lot about something I'm passionate for.