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BIO 294

Writing assignment #5

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Personal Statement

In 2020, the outbreak of the COVID-19 virus (SARS-CoV-2) caused what is now considered the worst Pandemic of the 21st Century. Millions of lives were tragically lost, and many others now suffer from the long-term health effects from the virus. At the time, I was a senior in high school, who hoped to graduate, pursue a pre-health Bachelor’s degree, and eventually attend medical school. I expected to specialize in surgery in the field of emergency medicine to not only pursue my fascination for science but more importantly, save lives. As the pandemic emerged, I soon realized that very essential and hardworking health professionals who were caring for individual patients needed a solution on a much bigger scale. This solution arrived in the form of vaccines, COVID tests, and other essential medical devices developed by scientists, biomedical engineers, and researchers. Not only did they all play a crucial part in controlling the pandemic, but they also saved millions of lives. Since then, I became heavily interested in biomedical engineering and invested in making it my career path.

The biomedical engineering field has provided medicine with the fundamental tools it needs to operate as well as directly contributed to medical advancements. For instance, medical imaging systems such as X-rays and MRIs allow health professionals to diagnose a variety of diseases and conditions. I have worked as a Certified Nurse Assistant in the past and have cared for patients that utilized biomedical devices to improve or maintain their health. For instance, patients with pacemakers, prosthetics, or those who have gone through an organ implant. I have also been a volunteer in the emergency and neurology departments at Riverside Regional Medical Center for the past year, which has also exposed me to other devices such as patient monitors, anesthesia machines, defibrillators, EKG/ECG machines etc. All those tools are very important for providing efficient and lifesaving care.

Although I have had the opportunity to have experience with some of the tools involved in the field of biomedical engineering, I also hope to engage in hands-on research, specifically in cell physiology and brain research field. I want to focus on neurodegenerative disorders, which affect millions worldwide, including some of my family members. In fact, in early 2019, my grandmother was diagnosed with Alzheimer’s Disease (AD), and although treatments have significantly slowed down the disease progression, there is currently no cure or more effective treatments for AD. In truth, many of the disease pathways are still a mystery. With that in mind, I hope to use the knowledge and skills I will acquire by pursuing this field, to research and potentially make advancements in finding a cure for Alzheimer’s Disease. Overall, Multiple life-altering events as well as day-to-day experience in the medical field have led me to want to pursue biomedical engineering. I believe it is an industry that cherishes creativity, and innovation, and allows big ideas to become big solutions, and I hope to be able to contribute to that cause.