Hayley Richardson

Statement of Purpose

For the past eleven years of my life, I have had the privilege to call myself a cross country and track and field athlete. This sport has been extremely influential in shaping me as a person, not only physically, but mentally and emotionally as well. It has helped to shape my passions and determine what drives and motivates me the most in life. Long-distance running is an extremely painful and grueling sport. Every time a racer steps onto the starting line, he or she knows the immense amount of effort that will be required of him or her in order to compete at the highest level possible. Racing requires physical exertion, but more importantly, it demands that the person racing is incredibly mentally strong. The hours of hard work and determination will mean nothing to the athlete if, come competition day, he or she is not mentally up for the challenge that lies ahead. Years of training and working on my own mental toughness has instilled in me a characteristic that gives me an incredible amount of drive and determination. These qualities pour over into all arenas of my life and help to shape who I am as a person.

Whenever it comes time for me to make an important decision in my life, I generally choose the hardest path. I am not afraid of challenges and usually look for opportunities in which I can be challenged and pushed beyond my limits. I look for chances like these because I enjoy challenges and I know that they will produce growth in my life. I look for situations which are difficult because I always want to prove to myself that I can do things that others would deem too difficult to even be considered. It is for this reason that I chose to devote myself to cross country and track and field, and it is for this reason still that I choose to pursue a graduate degree in statistics. Being an athlete has taught me that I should always strive to be the best that I can. I am constantly giving one hundred percent effort and attempting to excel in all of my endeavors. I want to pursue a higher educational degree because I want to challenge myself in the same way that I have challenged myself throughout all of my years of competitive running. Also, because my time as a competitive runner will be coming to an end in a few short months as the school years ends, I know that I will be searching for an outlet to redirect my competitive energy to. I know that graduate school will push the limits of what I think I can do; however, I do not shy away from it because I know that I will enjoy pushing myself and will be satisfying my desire to strive for excellence. I know also that a great amount of struggling and difficulty produces growth. I am interested in attending graduate school because I desire to grow as a person. I know that I will be able to do so in a graduate school environment; I will grow not only in an academic sense, but also in emotional and social senses as well. Taking on the challenge of graduate school will instill in me an even stronger sense of perseverance and determination than that which I already have.

In addition to these characteristic qualities that I possess, I also have had the unique opportunity to take part in summer research at my undergraduate institution. I worked on a research project for two summers throughout my time at Point Loma Nazarene University. This project consisted of data cleaning and data analysis of surveys data collected by PLNU. I was able to turn my research into an Honors Project, which I am currently in the process of working on. It was through this experience that I discovered my love for the field of statistics. I was able to work closely alongside two professors in the Mathematics, Information, and Computer Sciences Department at Point Loma; in doing so, I gained a lot of wisdom about the field of data analysis and what it might look like to do similar research in the future.

My research consisted of many attributes characteristic of work in data analysis. I spent a majority of my time working with the raw data and preparing it for analysis. To prepare the data for analysis, I had to do a lot of organization and “cleaning” of the data. I had to get rid of entries that did not make any sense or were incorrect; I also put together the data from multiple surveys and over multiple years so that I could look at how students’ responses changed over time.