As a passionate baseball enthusiast with a background in data science and mathematics acquired through my graduate studies, my love for the game goes beyond mere fandom; it intertwines with my professional aspirations and lifelong passions. While many may reminisce about childhood memories spent at the ballpark, my personal connection to baseball is deeply rooted, having witnessed the last pitch of the 2011 World Series in person alongside my best friend, my grandfather. That same fall saw the release of the influential movie Moneyball, which left an everlasting mark on my relationship with the game. This pivotal moment ignited my journey into the realm of baseball analytics.

Though I quietly followed trends and kept up to date with research in the field, I was mostly distracted by the demands of high school and college. Additionally, due to familial and societal pressures to take the “safe route” by getting a stable, well-paying job, I solely focused on a quantitative field that allowed me to pursue my deep mathematical curiosity. This caused me to completely ignore any non-traditional job route, such as baseball analytics roles. Therefore, I entered my undergraduate career as a Mathematics major with the hopes of becoming an actuary. However, after a few semesters and some soul-searching, I pivoted to Electrical Engineering for broader prospects.

Five-plus years and a Master’s degree in Engineering Data Analytics and Statistics later, I am employed as a Software Engineer at a Fortune 500 company. Despite the stability and security, I have felt unfulfilled. In recent years, I have found a renewed passion in Baseball Analytics, leading to a subtle obsession. It has brought me more happiness than any job outside the industry ever could, and this is what has led me to apply to the Pittsburgh Pirates.

I have created numerous machine learning models to quantify and assess player processes and feature engineer new “statistics” to approach player performance in unique and novel ways. I have tested these models for predictive power and even created a spin-off of a commonly used fantasy player valuation system for my high-stakes league, leading to success in both of my leagues. Additionally, I spend countless hours reading the works of prominent analysts like Eno Sarris, Tom Tango, and Ben Clemens, among others.

You used to have to go out of your way to witness the emergence of analytics in baseball, but now, statistics are ubiquitous in broadcasts. Despite this proliferation, I still perceive an untapped reservoir of potential for further advancement. From smarter economic decisions to biomechanics and player development, the field has constantly innovated. The rapid escalation of pitching labs, TrackMan radar data, and new bat-tracking data presented by Statcast suggests a bright future for further advancements, such as hitting metrics analogous to the Stuff+ models.

As an engineer and mathematician propelled by a relentless pursuit of innovation, I am drawn to the groundbreaking strides being made in baseball analytics and the inevitable future advancements. The allure lies not only in the game's ability to collect and analyze vast datasets but also in its potential to serve as a frontrunner for the broader industry of Big Data. With each pitch yielding thousands of potential data points, the opportunity to be at the forefront of this perpetual analytics revolution is simply irresistible.

I am particularly drawn to the Pittsburgh Pirates because of their commitment to innovation and player development. The organization’s focus on integrating advanced analytics into their decision-making processes aligns perfectly with my professional skills and passion for the game. I am excited about the opportunity to contribute to a team that values the transformative power of analytics not only within the sport but also as tools to improve every industry in society.

In applying for the position of Data Science with the Pittsburgh Pirates, I am more than just a fan of the game; I am a fervent believer in the transformative power of analytics. As a dedicated baseball aficionado, I am deeply committed to leveraging my expertise and insights to propel this team towards continued success while shaping the future of baseball analytics on a larger scale.

P.S. Although I subtly hinted at my allegiance with the Cardinals, my dedication to advancing the field of baseball analytics transcends team allegiances.