In an insurance company, underwriters want to know when a particular vehicle is going to crash, while marketing wants to know who to target with a direct mailing campaign to help offset those losses incurred. Similarly, Symantec wants to estimate churn on their existing customer base, and DSW is asking to group customers (called Clustomers) into like buying habits for targeted marketing efforts. Whether they're selling insurance, shoes, or software, these organizations are all asking the same question: how do we extract meaning from the data we collect? Data science is the key.

Having recently accepted a new position at Slalom as a consultant focusing on information management and analytics, I'm looking to pair my extensive data-analytics experience with your master's degree program. Elmhurst has an exemplarity reputation for producing well-rounded professionals, and I would be honored to add its graduate stamp to my credentials. A portion of my efforts in my new position will be to spearhead the firm's data science practice and help set standards and best practices. The leadership and knowledge gained from Elmhurst will be paramount in the success of both the firm and my own longevity in the Silicon Valley. I am especially interested in the online aspect of the Data Science program offered at Elmhurst College. I have often been commended for possessing the easy motivation and steady discipline required for self-directed study.

I spent the initial part of my career working as an actuary, a role that tasked me with analyzing data in order to estimate future risk based on past events. This role allowed me to utilize the knowledge I'd gained from my undergraduate studies. It wasn't until 2012, when I took on the role as Solution Architect at Teradata, that I began to understand the correlation between actuarial science and data science. Upon completing the Data Science program at Elmhurst College, I hope to augment my professional career by applying the skills I've acquired through my work and combining that work with a solid understanding of its relationship with data, so that I can build on and contribute to the growing field of data science. My personal desire

is to gain a deeper understanding of how technology adds a complex variable to solving problems through known and accepted analytical methods.

I have a long-held love for the data sciences. My high school enthusiasm for data-driven analysis carried over to college, where I studied at Virginia Polytechnic Institute and State University (Virginia Tech). I received my bachelor of science in applied discrete mathematics in 2001, with a minor in computer science. I had a close relationship outside of the classroom with the late Charles Parry, professor emeritus of mathematics. He was my mentor, and he also shared his published papers with me, giving me a glimpse of the true application of applied mathematics outside of academia. My education and Charles's direction served as a springboard into a career in actuarial science. My coursework in statistics, calculus, and linear algebra, as well as my strong programming foundation, allowed me to improve upon predictive models.

A desire for further growth and variation led me to transition into my current role supporting high tech manufacturing clients at Teradata. Working as a Solution Architect, I'm able to advise on both hardware and software solutions to many business problems associated with a variety of data sources. I act as a trusted advisor to the company's decision-makers on their entire data ecosystem, including marketing analysis, automation of systems, supply chain solutions, or business intelligence tool selection.

In conjunction with one of our customers, Telect, I was part of a project to develop a new way to monitor direct current (DC) power usage in data centers, called NRGSmart. The company developed a sensor to monitor every piece of equipment connected to power in order to better determine breaker amperage selection. I aided in development of their logical and physical database design, which included elements to allow for future data integration not anticipated during initial implementation. In phase two of the project, I integrated the use of R, a statistical software, to predict the failure of components based on variables from the sensors,

local weather patterns, and rolling blackout predictions from the external power grid. NRGSmart is currently in production, saving between 50 to 60 percent on power consumption and making the data centers greener, as well as generating a significant savings.

The difficulty that I find in today's ever-changing landscape of technologies is the idea of an underlying silver bullet in architectures that is going to solve all problems. It's my opinion that technology is not the challenge facing most companies; rather, it is a lack of formidable talent to mine the data within their IT infrastructures. It's not technology alone, but in combination with the knowledge and experience required to unlock the true potential of heterogeneous data sources and integrate them into one cohesive result. Looking at the offerings at Elmhurst, I believe that you have positioned your program with real-world application in mind, and I see an immediate value in every course in my daily work. I'm most excited to take your Data Mining and Business Intelligence course (MDS534) because it applies to the big data space, which I work with on a daily basis. It's easy to store data, but the true value comes in the ability to create algorithms and models that yield real, meaningful results, as well being able to intelligently display and interpret what the results mean.

I am obliged for the opportunity to express my enthusiasm for the field that is my passion within this essay. Data science is an emerging field, and I believe that the skills and expertise gained by completing the Data Science program at Elmhurst College, combined with my prior education and successful career, will bestow upon me the strong foundation I will need in order to make meaningful and significant contributions to the research being conducted.

Thank you for your time and consideration.