**STATEMENT OF PURPOSE**

Right from the days when the business world has been exposed to technology, business strategies have been transformed worldwide through data science. When I was enamored by the world of cryptocurrencies some time ago and began trying to predict the future, I was amazed by the potential held in data science. A key buzzword in the entire saga is ‘machine learning’ – the concerned set of technologies which is at the center of how companies like Facebook and Google have been achieving skyrocketing levels of customer satisfaction. With its advent, companies have not only been able to detect major cyber frauds, but also predict with staggering levels of accuracy what their customers and clients are actually looking for. Having meticulously analyzed how machine learning can shape the future, I believe that this program with your university is a natural step forward.

While my passion for machine learning is not very old, my interest in computing, mathematics and technology goes back to the days of schooling. It is exactly what led me to choose to go for an undergraduate program in computer science and engineering. This was a program that helped me relish learning the subjects I had been wanting to read in depth. I easily progressed to developing a fine command over Python programming, artificial intelligence etc. I also went on become acquainted with cloud computing, DevOps, full-stack development, cyber security, and ethical hacking etc.

During the undergraduate program, I was a part of a series of academic and extracurricular activities with which I not only widened my knowledge base but built substantially upon my skillsets. Significant ones of these were the projects I worked on. One of these as a project on building a hybrid movie recommendation system. For this project, a hybrid filtering method was designed that could make personalized recommendations. This was made possible by mapping the content and collaborative methods of filtering – all through an intensive usage of regression and clustering algorithms. The method was so designed that keywords concerning the plot of a movie, the directors and top three actors formed a part of the embedded metadata.

Given how illuminating working on the above project was, I am fervently contemplating across ideas for another project which will concern deep learning with neural networks. I am also enthusiastic about a dream project which I hope to pursue in the future. It will involve building a cryptocurrency token based on web 3.0 which allows transactions to be verified without using internet but by using network signals, radio and analog waves so that there will be no data breach and hacking of data. I have also been contemplating building a low code Python cloud platform that will contain the program, in addition to showing the parameters and variables in the module. The remarkable attribute will be that if a user intends to create an app or a website using the Python framework or undertake computation, the requisite data will be available as modules which can be easily imported.

My final year project involves optical character recognition. The idea is to be able to build a website that enables manual uploading of an image in various languages. Post the uploading, the designed system shall recognize the characters and autocorrect the spelling mistakes simultaneously. This will be followed by a conversion of the item into a digital format and a download of the same in the PDF format. In this project, I also intend to use cloud technologies to enhance the user experience.

With my interest in data science, I went on to undertake an intensive internship as a Data Analyst Intern with Jman Group. This internship helped me build upon my knowledge of various statistical methods, identification of issues in data and monitoring of existing metrics. In addition to improving my proficiency in Tableau and PowerBi, I learned to supervise data engineering resources to propel new projects on product development. As part of this internship itself, I undertook a project concerning prediction of car prices. Utilizing historic prices, it contemplated the prediction of prices of cars for upcoming and new companies in the future. To add, I was involved in analyzing SAP transactions to build a logical BI model for real-time reporting needs, coordinating data analysis and information flow, and applying statistical techniques to interpret key points from gathered data.

Among the many participations that enhanced my skillsets substantially were my paper presentations at a national level symposium titled Technocrats and a conference on emerging trends in computer technology. I also undertook certain Coursera professional certification programs including those on data engineering, big data and machine learning, Google IT automation with Python, and one on professional collaboration engineering for workspace by Google. Some other specializations I pursued from Coursera include those on deep learning, TensorFlow developer by DeepLearning.AI, Introduction to data science by IBM, applied data science with Python, scripting in Python, and Excel to MySQL: Analytic Techniques for Business and full-stack web development with React. Among my finest achievements was winning a scholarship for the Udacity Bertelsmann Data Track Nano Degree Program as a part of which I was given the chance to be a part of the Predictive Analytics for Business Nanodegree Program for six months. I completed this nanodegree program successfully.

To add to the above, I am proud of having actively involved myself in other endeavors for upskilling myself. Amongst others, I have been preparing for the German A1 examination for which I am pursuing classes offered by Goethe Institute and successfully completed the course. Having studied French for two years in school and finished all the examinations in Hindi, I am confident about having a fair command over these, and also look forward to build my command over German. At the same time, I am passionate about swimming, fitness and several social activities concerning giving back to the society. All of these have helped in the overall development of my personality substantially.

All of the above have been experiences that, in all honesty, have multiplied by several times for thrilling for going into the depths of machine learning. At this stage, I am immensely driven, self-motivated and inspired to pursue a journey that will help me comprehensively understand the variety of applications of machine learning which, certainly, will shape the future of several industries in the time to come. With this mindset, I would like to pursue this coveted program with your university.

After immense research, I have chosen your university for this exceptional program. Among other aspects, it will allow me to meticulously appreciate the variety of recent developments concerning natural language processing, neural networks, and supervised and unsupervised learning. It will also help me mastering the fine nuances of the subjects of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ which I am exceptionally interested in, and with a great grasp on them, certainly, I will be prepared to work with the very best in this field.

It will also help me build a good grasp over the various types of datasets and their utilities, and the various steps involved in building phenomenally effective machine learning models including clustering, regression, classification and association. Additionally, I have been amazed by this program’s widened focus on practice over theory, and it’s focus on ensuring that candidates develop industry-relevant skillsets. Of learning in the abovementioned directions with some of the best faculties from across the globe will, certainly, be an outstanding experience. Undoubtedly, I will be prepared to work with industry giants such as JP Morgan and Goldman Sachs, and contribute to the growth of organizations worldwide in an effective manner.

Indisputably, given an opportunity to pursue this program, I will make the most of the same to emerge as one of the finest professionals your institution has ever produced. With much enthusiasm, I look forward to joining your university – for the MS in Machine Learning program!

**MORRIS DARREN B**