

## **STATEMENT OF PURPOSE**

### **Intended program: MS in Analytics, Gatech**

As all major cities of the world face the monumental challenge of rapid urbanization and equitable distribution of resources, smart cities have become more of a need-of-the-hour concept rather than a fancy notion. Yet, the central question which stares at a smart city is - how to connect government collected data to make the city more resource efficient and livable. The answer - Data Science.

As a Data Engineer working on the Smart Dubai Initiative, I am at the forefront of such Data Science techniques to amalgamate data collected at multifarious government levels to make Dubai a smart city. My work entails creating a forecasting platform to predict bus ridership and congestion patterns to plan the optimal route of buses around the city. The platform incorporates Big Data sources, using modern processing techniques and tools, particularly Application Programming Interfaces (APIs).

Starting off as a Hadoop developer, my interest in data science grew as I collaborated with data scientists working on open data. Taking cues from them, I took courses on Tableau, Deep Learning and CNN from Coursera, and participated in Kaggle competitions. Gradually, I transitioned to the data science team, which skyrocketed my learning curve in concepts of data models, machine learning algorithms, and predictive systems. The bus ridership project became the fulcrum of my knowledge in extraction and loading of data, and pragmatically analyzing heterogenous data to drive business intelligence.

Enthused by the applications of data science and aspiring to push the envelope through innovative work in healthcare and urban development - areas which are close to my heart, I now want to gain more robust knowledge of the field. This is my primary motivator to apply for an MS in Analytics at Georgia Tech.

I started my professional career as a Mainframe Developer where I was instrumental in creating customized, automated tools for the business processes. Promoted to a Tech Lead in only 2 years after that, I started my leadership journey with a team of developers to implement tech solutions for high value insurance clients. This project did wonders to my command over legacy systems and solution architecture.

My curiosity to learn new technologies led me to explore fundamentals of data science by joining the Kaggle community. This built my proficiency in working with open data, Natural Language Processing and Artificial Intelligence. While making use of sentiment analysis to analyze tweets for a Kaggle competition, I gained experience in Kaggle kernels, Transformers, BERT and image processing. I bolstered my competency further in the analytics domain by getting certified in MicroStrategy. Such activities formalized my interest in data science and its applications to solve real world problems.

As I see more organizations move to data science for generating profitable insights for their business, I believe my skill set can shape their growth story. However, I realize that I lack the essential knowhow of Statistics, advanced computing and Operations which will be a bedrock of my success as a Data Scientist in my professional career. This is exactly what I hope to burnish at MS Analytics program at Gatech. The breadth of the curriculum and the focused tracks of analytical tools and business analytics will enable me to explore various aspects of information technology, data mining, optimization in business, which will be very helpful in my future roles.

I am confident that over a half a decade of experience in designing systems will add value in case-based studies. I plan to transition to data scientist roles in innovation hubs such as Amazon, Facebook and Google. My drive has always been to be the best at what I do, and I intend to bring that to the graduate program.

Thank you for reading my motivation letter.