

Statement of Purpose

“Data is a precious thing and will last longer than the systems themselves.”

These prophetic words by Tim Berners-Lee, Inventor of the World Wide Web reiterate the importance of Data Science in the modern computing world. Data Science is the driving force behind the way technology is transforming business and industry. From push advertisements on Facebook and Instagram to Biotechnology and healthcare systems, Big Data Science is leveraging technology to make processes easier and drive business decisions. Data Science is surely the passport to the future and I find myself intrigued by the exciting possibilities in this fascinating domain. My final year project on Machine learning using python only deepened the desire to explore this uncharted domain. An MS in Data science from your prestigious University will be the culmination of a long cherished dream, and the stepping-stone to a stellar career in the computational arena.

Always inquisitive by nature, with a natural affinity for numbers, I opted for science in High school, exploring and testing the waters for future course of action. A good ranking in the entrance examinations saw me get admission in the prestigious B.Tech (Computer Science and Engineering) program in ABES Institute of Technology, A.K.T.U, UP. College opened the portals of the vast IT world, acquainting me with Data Structures and Parallel Algorithms, Data Base Management Systems, Compiler Design, Data Mining and Warehousing, Computer Operating and Networking Systems and Artificial Intelligence. My deeply abiding interest in computing propelled me to learn cutting edge technologies like PYTHON, JAVA, SQL, PHP, and JAVASCRIPT. I deepened my knowledge and was able to apply it practically through various projects and internships. Under the guidance of my professor, Mr.Sanjeev Kumar I worked on my final year project based on Artificial Intelligence. This challenging project on Prediction of Alphabet Matrix through Support Vector Machine (SVM) used Python to arrive at its analysis. The project required many days of detailed research on the prediction of alphabet matrix to increase or maximize the accuracy of the mismatched alphabet. My hard work and dedication paid off and not only was the project a resounding success, it was also published in International journal (Please mention the name and year of publication here) I was able to test and apply my knowledge in the real world during my internship in Smalt and Beryl Pvt. Ltd. I got an opportunity to work on the design & development of the user interface of the homepage of Food Express and create a dbms for the user using MySQL. I also learned Php, JavaScript and Git, Github during my time there. My joy was compounded when I was selected for the ‘You make an Impact’ award at Smalt & Beryl. Working as a team and gaining practical experience, these projects and internships have not only instilled confidence to apply programing skills, time management and team spirit, but also gave an unparalleled sense of accomplishment of working on live projects. I firmly believe that the knowledge that I have gained through my academics has given me the necessary grounding and foundation upon which

to build my future career. It has helped me to develop critical thinking and gain the educational skill set, which will serve me well in successful completion of the program.

Upon my graduation, I joined HestaBit Technology Pvt Ltd. as a _____ working on design & development of 'Discussion Board', user interface of the homepage of assessment and applied Reactjs for UI. Working with domain experts I have been instrumental in resolving defects during the project with minimal to zero reopen rate. During this time, my interaction with my seniors in the industry highlighted the fact that I have much to learn about Analytics and Data science. This niche technology is something that is hard to learn without proper guidance. An MS in Data Science is thus a logical step in my academic and career progression. A master's degree will equip me for myriad careers in Big Data, Quantitative modelling and Computational science. In the next five years, I envision myself as an expert in implementing my newly acquired data skills as a Data Scientist in global corporations. I aspire to extract meaning from raw data through visualization and use the tools of statistics and Machine learning to leverage data driven decision-making. With the help of state-of-the-art statistical and computational techniques to manage Big Data, I look forward to adding value through innovative solutions to business problems, predicting demand and visualising data for analysis and quantifiable data backed decision-making for a wide range of application domains. My long-term vision for the future, after gaining adequate experience, a good business idea and like-minded people to implement it with, is to dabble in a data science start up.

My discussion with my professors and peers, plus research on the Internet led me to Ireland and University College Dublin. Ireland is well known for excellence in education built on the foundation of pedagogy steeped in research. University College Dublin is the number one college for graduate studies and graduate employability in Ireland, and with a curriculum offering cutting-edge education in Data Science, it promises to be a flagship program. With world-renowned lecturers who lay emphasis on innovation and learning in the real sense, UCD is a haven for scholars with a passion for technology. The state-of-the-art learning and research facilities and the opportunity for experiential learning will help me to accelerate and consolidate my knowledge. Further, I look forward to exploring data science through the unique modules in scientific computing, data analytics and mathematical modelling. Under the expert guidance of exemplary professors, I am keen to hone my skills in Statistical Data Mining, data programming, Fortran, C and Parallel Computing using MPI, Bayesian analysis, linear Models and Mathematics for research. The University's strong industry network and collaborations with international institutions for research and education offers unparalleled opportunities for internships, scholarship and research.

The University College is a unique amalgam of students from diverse fields and I would love to be a part of the UCD community and enrich myself with the vast diversity of student experiences on offer. I have been active on the co-curricular front having co-ordinated and participated in various events.

I secured the First Position in C programming language competition apart from coordinating tech events such as BigDataThon 2017 & Tetrahedron 2016. I strongly feel that I can contribute effectively to the to the program by working with a multidisciplinary approach towards UCD's technological and cultural ethos. I am confident that the profound knowledge and guidance at University College will empower me with the necessary skills to lead from the front, and push the boundaries of innovation in Data Science.