

STATEMENT OF PURPOSE

Having always been fascinated by the world of computers science, I have been involved in the science of programming, which subsequently sparked my inherent interest in computer science. Born in a generation that witnessed the tremendous advancement in Information Technology. By the time I was in high school, there were many mind-boggling tech companies who had made the once impossible, possible such as texting at our fingertips, video chat, online currency, and a whole lot of virtual worlds. Being fascinated and thrilled by the advanced technology around was obvious for me.

With all this in my mind, I took up the quest to become an engineer who would strive to make a difference with my work. My aspiration for a technical career led me to take up the undergraduate program in Computer Science. My undergraduate study has given me a strong foundation in Computer Science concepts such as Database Management Systems, Big Data, Data Structures, Programming Languages (Python, Java, C++), Algorithms, Software Engineering, Computer Networks, Operating Systems, Object-Oriented Concepts, and Machine Learning (NumPy, Pandas, SciPy, Scikit learn, Matplotlib, Seaborn, Keras, TensorFlow). I took Machine Learning as my Engineering Minor from my 5th Semester. I believe I must build on industry-hardened skills that I possess to achieve my goal of undertaking cutting-edge research in advanced computing with specific reference to Data Science. Besides, I have studied subjects such as Analysis of Data Structure and algorithms, Some Programming Languages, Web Development, Computer Networks, Machine Learning, and Computer vision.

When I studied Data Structures and Algorithms, I was enthralled by the various methods of arriving at a solution for one problem and deciding the optimal solution. I could now convert real world problems into optimized algorithmic solutions. I strengthened my foundation by spending a lot of time in various laboratories implementing the core concepts taught in these subjects. In the later semesters I heard about the buzz around emerging technologies and hunted for more information about them online. I developed a sheer interest in web technologies and created a University Management System Website using HTML, CSS, and JavaScript and some other. Right after studying Machine Learning, I decided to evaluate the practical implementation by making some projects. One of projects named Optimization of green signal timings in traffic light controllers. The objective of the "Optimization of green signal timings in traffic light controllers" machine learning project is to develop a model that analyzes real-time traffic data to optimize the duration of green signals. By improving traffic flow efficiency, the project aims to reduce congestion, minimize travel time, and promote greener transportation systems. I successfully completed the project and getting appreciation for the project from professors of the Machine Learning department was a cherry on the cake.

The experience helped me realize that my core interests lie in Data Science and helped in strengthening my resolve to look for advanced courses which will give me the opportunity to improve and optimize various algorithms and do groundbreaking work in the field of Data Science. My penchant for computer science helped me explore courses online. I did certificate courses on Complete Web Development Boot camp on Udemy, Competitive Programming with Java on Cipher Schools, Data Science certification on Analytics Vidya and on Simplilearn. To improve my knowledge on Data Science, I am doing a course on Artificial Intelligence Engineer on Simplilearn which covers all the Data Science concepts. I also did a Feature Engineering Project while learning this course. In the project, I performed feature engineering on a dataset of 79 explanatory variables describing residential homes in Ames, Iowa to identify factors that significantly influence price negotiations during the house buying process.

After gaining all these skills, I started working in Cognizant Technology Solutions as a full-time employment on Salesforce developer domain. I also did an internship in Cognizant during my eighth

Semester. Here, my job responsibilities are developing and customizing Salesforce applications, writing Apex code and implementing Visualforce pages, configuring, and maintaining Salesforce objects, workflows, and validation rules, collaborating with client and stakeholders to gather requirements and provide technical solutions, testing and debugging salesforce applications, participating in code reviews and ensuring adherence to best practices, and providing support and resolving issue related to salesforce implementation.

My experience in Cognizant made me familiar with the recurrent problems in the data industry and realized that there is humongous potential in analyzing the untapped text data available to the industries from which useful information can be extracted. I have realized the immense scope of Natural Language Processing and decided to look for courses offered by top beat universities around the world. I believe it is the apt time for me to go for post-graduation in Data Science because I have gained valuable industry experience, which has provided me with a solid foundation in practical skills. Now, I am eager to deepen my knowledge, explore advanced concepts, and engage in research that will contribute to the field of Data Science. By pursuing a master's degree, I can enhance my expertise and open opportunities for career advancement and greater impact in the industry.

Upon completion of this degree, I aspire to work with industry-leading companies such as Microsoft, Google, or Amazon as a Data Scientist After gaining some experience of working in the industry, I wish to take on leadership roles and contribute to groundbreaking projects that push the boundaries of technological advancements. I aim to leverage my expertise as a Data Scientist to drive innovation, solve complex problems and make a significant impact in shaping the future of technology.

The University of Maryland Baltimore County is well famed in the world for absorbing the brightest of the minds and has one of the most challenging masters' programs. I am confident that my past academic journey with the under-graduation in the interdisciplinary field of Computer Science, and the certificate courses I have done has built a solid foundation in the Data Science domain. The master's program at this University is a modernized and upgraded course with contemporary tracks. The coursework and practical assignments seem to be designed to equip students for the industry with the most pertinent skills and knowledge. Industrial grade projects that you appear to offer your students will afford real world exposure as well as opportunities to work with sophisticated technologies. Advanced labs, training for the corporate, and a dynamic academic environment await me at this university. The research environment at this university is one I wish to leverage judiciously by assisting professors in their research or taking on the role of Teaching Assistant while learning from their expertise.

I took part in my college cultural and tech fest where we had to organize and manage the exhibits, put up our exhibits, and helped with the promotions of events on social media. When I was in my sophomore year, I got familiar with one of the most trending technologies- Robotic Process Automation through a competition called BOTATHON. I also attended a full stack web development workshop. As a course requirement, I got an interesting opportunity to work on the practical implementation of the concepts learnt in the classroom.

Being an active player in community development activities, I wish to continue doing it under the aegis of your esteemed University. With an exceptional variety in projects of social significance, mentoring by industry experts, and networking opportunities, I am confident that I will realize my full potential and objectives at your esteemed university.