

Statement of Purpose

Programming simplifies every task in the human world, evolving with every new technology. It is reshaping, redefining and realigning the world with every new byte. Without computer science, countless devices that we rely on today would not exist - from space shuttles, medical devices to the cell phone. Software is indeed changing the world in unimagined ways. It can document and offer unexpected convenience to our routine tasks. The kind of transformation that programming can bring to everyday chores is amazing. The MS in Computer Science at your university meets my need for an education that would help me catalyze change in positive and productive ways.

My journey with Computer Science began with joining VIT University for Bachelor's in Computer Science and Engineering. The excitement of learning new concepts has only grown with time. Discussions over an idea with peers led to valuable building blocks, developing better capabilities for experimentation. Thus group-work became a part of my preferred work culture. Developing upon the basics of programming via learning various languages such as C, C++, Python, Java and MATLAB, I also undertook online tutorials to explore into the wide scope of computers. A certified course on Machine Learning by on Coursera motivated me to select Data Mining, Soft Computing and AI as my university electives.

Currently, I am a student of the INTO Mason Graduate Accelerated Program enrolled in Computer Science. As a part of the Pathway curriculum, I have enrolled in Computer Science and introductory graduate courses. These courses have given me a different perspective than the Eastern educational system. I realized that the Western education emphasizes more on critical thinking and analytical skills. Due to the INTO courses, I have successfully been able to adapt to the Western education style and my efforts are reflected in my grades too.

It has been satisfying to work on a research-oriented project on Refined Rough Fuzzy Clustering Algorithm to find the ambiguity in clusters of data and evaluating it based on Davies-Bouldin and Dunn index of the final cluster centers. Applying this research, in a practical set-up, had me see its implications in the health sector and I was happy to learn that this could enable doctors to analyze scanned images to make more informed diagnosis and treatment. Reducing the steps in the algorithm from three to two was a satisfying result of weeks of labor. This won my paper a selection for publication by IEEE ICCIC, 2014, a thrilling milestone in my journey as a researcher. This larger societal effect motivates me to build my expertise so that I may ultimately use my knowledge for the benefit of humanity at large.

During a two-month internship at a startup, research skills gave me an edge while developing software. In my first project with DataWeave, I was involved in performing clustering of attributes of products from e-commerce sites to gain insights and to generalize them for better working of the product. It helped me in elevating my programming standards as I was dealing with real time data and learned how we are supposed to handle the same. In today's world of excessive data, this project helped me gain practical experience on customizing information for users so that it is useful to make fast decision.

I was a part of the IEEE-CS chapter, which gave me opportunities to participate in and to organize symposiums and workshops on latest technical research. Conducting workshops on Mozilla Firefox and participating in hackathons helped me share my enthusiasm for this field with peers. Serving as the marketing head for events took me into another realm of presenting to corporate sponsors, giving me a taste of the challenge that lies while dealing with the business world.

Studying in the US where there is brilliant scope for research is the ideal way ahead in my pursuit of excelling as a software developer. After being a part of the INTO program I realize that Mason's research centric academic approach would provide the resources I need to pursue my goals. I believe that an education at George Mason University will give me access to experienced faculties like Jessica Lin and Carlotta Domeniconi and opportunities to test my ideas with a vast multi-talented pool of students. I believe in a world of thought where technology used for social benefit is the primary goal. I am sure that education at your institution would be the next essential step towards this journey.