<u>Statement of Purpose: Atharva Gole</u>
<u>Master of Science in Computer Science</u>

I still remember the day when I was in my 1st year of engineering. I had made my own 1-bit processor and executed the instructions for adding two numbers. As a kid, I was always fascinated by machines and electronic devices. Most of my time during my childhood was to dismantle the toys for understanding their working mechanisms. I used to design and make my own electronic circuits. Though I wanted to become an engineer, I was not sure about which stream to take. After Grade 10, I bought myself an Arduino kit, that's when I was introduced to programming. My mathematical proficiency made coding simpler for me. Gradually, I started gaining interest in coding and decided to pursue Computer Engineering.

Currently I am pursuing my undergrad degree from K. J. Somaiya College of Engineering. During my four years, I was exposed to different domains in Computers. I have developed special interest in Machine Learning, Software Development and IOT. Along with classroom sessions, I was also exposed to practical sessions which have given me a hands-on experience. Being very passionate about programming I never used to get tired of the extensive tasks given in the labs. I used to be the first person to complete the coding tasks in the entire batch.

The most favourite part of my course was the projects I worked on. I did more than 10 projects in different domains like AI, Machine Learning, Image Processing, IOT, Web and App Development. All these projects had varied challenges and I worked very hard to complete them. I am currently working on my final year project which is based on Machine Learning and Robotics named 'Walking Quadruped Robot trained using Policy Gradient Reinforcement Learning'. The main motive of the project is to make a robot learn to walk in a way the humans learn to.

I have also had the opportunity to work as a research intern under Professor Dr Jyoti Joglekar. Our project was in the domain of Satellite Image Processing, Data Analysis and Machine Learning. We also presented a research paper on it, that won 2nd prize in the prestigious INAC-4 National Conference organized by Indian Society of Systems for Science and Engineering (ISSE). Besides projects and research work, I found competitive coding very interesting especially problems related to Algorithms and Mathematics. In my 2nd year of Engineering I used participate in Codechef Long Challenge which used to be 10 days long and had 10 problems. Overall, I have participated in around 30 online coding competitions and my best rank was 58 in 8000 participants worldwide in February Long Challenge 2018. I have also won 6 local coding competitions and cleared the online round of ACM ICPC 2017 and participated in regional round held at Kolkata and secured 51st rank there.

Apart from academics, I have a keen interest in Cricket and Swimming. I played for Union Cricket Club in school days and participated in various cricket tournaments. As a part of my research internship, I also participated in a social activity. We visited Palsunda village for collecting data for our research and discussed the problems faced by farmers due to climatic conditions and scarcity of water. Further we discussed ways of improving agricultural yield and how our research could be useful for them.

I intend to pursue Masters in Computer Science as it offers extensive scope and research in various areas of computers. By augmenting my qualification, I will achieve my long-cherished goals. I am sure that Masters will provide me with relevant knowledge and equip me with necessary technological developments. After my masters, I am planning to work in a company where I can use my skills and expertise to the fullest. After having sufficient work experience and knowledge in the field, I wish to have my own start up.

Being a part of the master's program at University of Texas at Dallas will enhance my intellectual quest and help me achieve my desire to be a successful software engineer. I am highly impressed with the curriculum, faculties and facilities that your university offers its students. Also, the curriculum is at par with the industry standards and it will give me a well-balanced knowledge about the field. Keeping all these into consideration, I believe there is no better place than your esteemed university to gain advanced knowledge. I am sure my curiosity and skills along with my dedication and motivation will help me excel in the program and lead me to the zenith in the field of computer science.