

## STATEMENT OF PURPOSE

It is said that a unique individual is shaped by a unique education, and my education has certainly been unique. From growing up in one of the most backward areas of the country to being in Mechanical Engineering and to pursuing Master's in Computer Science in one of India's best institutes, I believe I have come a long way.

I have always been passionate about education and I have always been sincere student since childhood, always trying to make the best of the situation. I was schooled in the best school of my suburb - *St. Mary's School, Mirzapur* from where I cleared my Secondary Examination (ICSE) with 91.3% and Senior Secondary Examination (ISC) with 90.6%. I was lucky to get exposed to Computer Science education in school and that was where my love for learning Computer Science emerged.

After securing a good rank in the *UPSEE* examination, I got admitted to *Institute of Engineering & Technology, Lucknow*- where I pursued my B.Tech in Mechanical Engineering. Although Mechanical Engineering was not bad, I was intrigued by Computer Science and Cyber Security in particular. Hence, I decided to appear for the GATE examination in 2020 where I secured an All-India Rank of 239 among 97481 candidates. I was fascinated by the research work done at "*Interdisciplinary Centre for Cyber Security and Cyber Defense of Critical Infrastructures – The C3i labs*" at *Indian Institute of Technology, Kanpur*, being the best Cyber Security labs in India and decided to pursue my M.Tech in Computer Science & Engineering at *Indian Institute of Technology, Kanpur*.

My journey in the M.Tech program at IIT Kanpur has been full of challenges and ups and downs – the downs coming from the fact that I had to take all my courses online due to the COVID-19 pandemic. Nevertheless, the department of CSE has given me various opportunities to be a part of some excellent courses and cutting-edge research projects, and I have proudly excelled in those endeavors with a perfect 10 CGPA. The courses in my first semester were focused on Data Science and Machine Learning in particular. The course *Introduction to Machine Learning* by Prof. Piyush Rai in my first semester has left a profound impact on me and this course got me hooked to Machine Learning and its applications. My current semester courses are focused on *Natural Language Processing* and *Cyber Security*.

I am looking forward to exploring the world of *Cyber Security* and *Adversarial Machine Learning*. I believe that Cyber Security is no longer just an information security problem, rather it has become a national security problem due to increased use of digital control and communication in the functioning of critical infrastructures. It is said that World War 3 will be a Cyber War, and I aspire to be a part of the process of preventing the next war.

This field has immense challenges and career opportunities which excite me to work in this domain. I am looking forward to doing research in the amazing C3i labs of IIT Kanpur and I believe that pursuing research in such a dynamic and fast advancing field will prove to yield a very rewarding career.

Through this M.Tech program in Computer Science and Engineering, I will have the unique opportunity to not only enhance my skills in the area, but also contribute to cutting edge research which will define the field in the future. I am aware that the journey will not be easy, but I am sure that I will face the challenges in this program with full effort. The Reliance Foundation Scholarships will help me cover up my academic expenses at IIT Kanpur. It has been my dream to opt for an exchange semester in European universities and the scholarship would provide me with the funds needed to survive during my exchange semester abroad. The scholarship funds will allow me to equip myself with modern computing resources, the lack of which will otherwise be a bottleneck in my courses and research work.

**SAMBHRANT MAURYA**