Statement of Research Interest

A desire to extend my knowledge and an enthusiasm to solve the demanding problems faced by the industry today, motivated me to pursue Master's in Computer Science and Engineering (Deep Learning). I believe that my educational background has instilled in me the qualities required to meet the rigor of this demanding course, and subsequently, the profession. I bring along with me a strong grasp of fundamentals in Machine Learning, along with a desire to learn, a penchant for teamwork and leadership, and a zest for challenges.

My first biggest decision which set the path for my career was choosing Computer Science and Engineering as my field of study. I completed B. TECH in CSE from NIT, Bhopal, Madhya Pradesh, India from 2014-2018 with a Full-free scholarship by ICCR (Indian Council for Cultural Relations). I have been working as a "Computer Science-teacher" in computer science department at CIDER International School, Chittagong, Bangladesh in Cambridge Curriculum.

I have worked on machine learning concepts including Support Vector Regression analysis as my minor project where I have analyzed the performance of the SVM and trained SVM for regression. In major project, I have worked on Smart Agriculture System Based on IOT. This system works in a manner in which it firstly does data collection from the farm via the help of sensors, then it sends the data to the server side from where and on which further actions can be taken. The proposed system will not only aid the farmers but will also help them to digitize their farming practice and in turn help them to yield the best from that soil without being dependent on the climatic conditions.

Apart from these, during this pandemic, I have built a machine learning model on house price predictor and analyzed its performance using linear regression, decision tree and random-forest regression algorithm performing cross validation, train-test splitting, stratified shuffle split in the dataset. Besides, I have been working on product recommendation system (in python) for the ecommerce sector and used Flask for the deployment.

In the near future, I see myself working in the Research & Development department of a reputed company where I would get an opportunity to solve some of the major challenges of the industry. Towards this, I chose to pursue M. TECH from Indian Institute of Technology Kharagpur West Bengal, India - Department of Computer Science & Engineering. I am confident that the M. Tech program in Machine learning offered at IIT Kharagpur will allow me in enhancing my understanding of the field to a great extent. I strongly believe that the curriculum, professors, peer group make IIT Kharagpur, a

melting pot of innovation and will allow me to apply my knowledge base and interest for research to bring to fruition the areas that I am passionate about.

The attraction of any field lies in the depth as well as breadth of its applicability. I believe being at IIT Kharagpur will allow me to soak in and contribute to the broad spectrum of applications that exist within the realm of deep learning. I am eager to learn more and work on deep learning concepts, especially recommendation system. I look at this application as a hope to pursue my ideas and skills in the company of people with whom I can contribute to new ideas, discuss theories and make an impact in the long run.