Statement of Purpose

In recent years, fake news has become an issue that is a threat to public discourse, human society and democracy specially in South Asia. In Bangladesh there are several cases of suicide, seriously injured while attempting to suicide, mental disorder cases found due to deepfakes. Innocent peoples name have been involved in serious accusations like Blackmailing, Pornography, Fraud etc. It is very difficult to see faces of innocent people, crying loud inside for help. It doesn't have to be a politician to be a deepfake, It even might be our friend. It could be us that's targeted. I believe that Potential positive innovations have to be emerged and raising awareness alongside the growing popularity and creation of deepfakes to reduce the crime that is happening to the innocent peoples. That is what persuades me to pursue a PhD in Machine Learning Engineering field. Several years from now, I picture myself as an extensive researcher into top places on latest problems in the field and do something extra ordinary to serve my society and country people.

Currently I am pursuing my B.Sc in Software Engineering Major from Islamic University of Technology(IUT), an organization of Islamic Co-Operation(OIC). IUT is an international university which is famous for well structured academic curriculum and strict discipline. Only few students holding highest quality result get the chance to study in this university after a very competitive admission test. In an environment that is intensely vying where research goes hand-in-hand with learning, I had the opportunity to engage myself in both theoretical research work and implementation. IUT has separate Machine Learning community where different ideas and innovations are shared and students gets the motivation to do something out of the box. Students get very nice ideas about Machine learning and Artificial Intelligence and get opportunities to do hands on tasks. IUT students participates on different competition based on Machine learning and Artificial Intelligence and has the reputation for bringing so many awards for them.

I got the opportunity to get the experience of corporate world. I have done internship on Robi Axiata Limited, the largest mobile network operator in Bangladesh. As my interest is in Machine Learning field, the company gave me the responsibility to automate some of their projects using Machine Learning and Artificial Intelligence algorithms. CLM and IB(internal department) has taken few AI/ML-based model developments, customer engagement program launches and automation projects for driving growth and operational excellence in 2021. My task was to build a real life Machine Learning model for the company to do some specific task. This journey with the company helped me a lot to understand and get the insights about the Machine Learning field with moire depth.

I have also done some personal projects on my interest. I have done some online courses to gain solid ideas. Besides academic and research work, I also been involved in several co-curricular activities too. I have participated as a contestant in IUT ICT FEST in 2019. I have participated in intra IUT coding contest.I have also organized 10th IUT ICT FEST as the part of food dept. and arranged 3000+ meals, organized IUT OIC Inter University Football Championship. I was wicket-keeper batsman for IUT CSE cricket team and left wing for IUT CSE football team.

The department of Computer Science of University X truly offers wonderful opportunities to researchers interested in Machine Learning Engineering field. I am very much interested in working with professor Y in his Laboratory where advanced algorithms are developed and applied for detecting deepfakes, positive applications of deepfakes and such related things. Researchers of this Lab have developed automatic systems that examine videos for errors such as irregular blinking patterns of lighting. A team of this Lab also publish a paper in October 2020 outlining their technique of using reflections of light in the eyes of those depicted to spot deepfakes with a high rate of success, even without the use of an AI detection tool, at least for the time being. These things encouraged me a lot to work here and get the opportunity to learn from the experts. I believe that opportunity to participate in such research works will be the perfect platform for me to pursue a research oriented career.

I am very eager to work under and with some of the finest mind in Computer science. Continuing my study and performing research in this university will increase the depth of my knowledge. I wish to earn a PhD and continue my career as a researcher in future. I believe the graduate program of University X will help me to achieve that goal. I hope my background and qualification are suitable to enroll into in PhD program in Computer Science at University X.