**Describe any prior research experience relevant to your intended area of research at the University of Alberta. This information will help us identify your potential supervisors.**

My current research interest lies in Artificial Intelligence, specifically in neural networks, deep learning and their applications in solving real world problems. These are my indented areas of research at the University of Alberta.

To carry forward my interest, I am currently working on a research project titled - 'Text-to-face Generation', inspired by the problems with translating a person's description into artwork, which I experienced as an amateur digital artist. Variations of Generative adversarial networks (GANs) are being implemented in this project using TensorFlow for generating facial images using text descriptions. This project has direct applications in generating faces of criminals using descriptions given by witnesses.

Simultaneously, I am working on two more research projects using Non-dominated Sorting Genetic Algorithm (NSGA-II) and Long short-term memory (LSTM) networks. The first one tackles the problem of forming the most effective teams of experts for a task requiring skills in various subjects, using metrics to measure the level of expertise of an expert and to quantify the trust between a pair of experts. While the second one is about predicting the yield of different crops in the four major Indian seasons based on previous trends in temperature; rainfall and crop yield.

Previously, I worked on a research project in which I developed a system using a Raspberry Pi and an Arduino to track a soldier's health and location, which transmitted its data on a private Blockchain coded in Python. Based on that, my professor and I wrote a paper which has been accepted by Amity International Conference on Artificial Intelligence 2019.