**Topic of research: Neural networks**

I am categorically interested in studying techniques that deals with transformation of raw data input to a representation that can be effectively exploited in machine learning tasks and deep learning is based on such learning representations .So use of deep learning as a powerful set of techniques for learning in neural networks is the basic topic of research that I would love to pursue. I had done a project on recognition of hand written numbers and this was done using two supervised learning algorithm: support vector machine using and k-nearest neighbour algorithm but I would like to learn to use deep neural networks for the same purpose and its other applications such as character recognition, image recognition, speech recognition, and specifically its application in medical field.