**My Project Topics**

* **USING MACHINE LEARNING ALGORITHMS TO PREDICT THE OUTCOME OF A FOOTBALL MATCH**

European Football or soccer is the world’s most popular team sport. It is watched by over 150 million men and women of all ages in more than 200 countries. It is also one of the favorite sports for betting. The current estimations, which include both the legal markets and the illegal markets, suggest the sports match-betting industry is worth anywhere between 700bn and 1tn dollars a year. The veterans themselves have their own real life prediction model and they get it right about 50% of the time. Football veteran and former Liverpool defender Mark Lawrenson and Manchester United’s Gary Neville had a prediction accuracy of 57.6% and 55.1% respectively. The aim of this project is to build and train a system to predict the outcome of football matches using machine learning algorithms like Support Vector Machine, Naïve Bayes Classifier, Random forest and logistic Regression.

* **FOREX MARKET PREDICTIONS USING MACHINE LEARNING ALGORITHMS**

Prediction of forex prices is always challenging since forex rates often show nonlinear dynamics and are often noisy, non-stationary and deterministically chaotic. The Artificial Neural Networks (ANN), due to its unique non-parametric, non-assumable, noise-tolerant and adaptive properties, may map any nonlinear function without a prior assumption but can also estimate probability when given an appropriately formulated problem. It has shown great applicability in time-series analysis and forecasting due to its pattern recognition capability. At the same time, Random Forest (RF) has also been accepted as an effective machine learning algorithm providing good regression and classification performance. In this project work, I have evaluated and compared two machine learning algorithms - ANN and RF – for predicting the currency spot price of *(n+1)th* day based on the spot price of previous *n* days. The motivation of this work stems from inconclusive findings on the forex forecasting issues which needs further comprehensive investigation.