**Weather forecast prediction using Machine learning  
  
Abstract:**

Weather forecasting has traditionally been done by physical models of the atmosphere, which are unstable to perturbations, and thus are inaccurate for large periods of time. Since machine learning techniques are more robust to perturbations, in this project we explore their application to weather forecasting to potentially generate more accurate weather forecasts for large periods of time. A linear regression model and a variation on a functional regression model were used, with the latter able to capture trends in the weather

**Description:** Weather forecasting is the task of predicting the state of the atmosphere at a future time and specified location. The previous state of the atmosphere is databased , and the future state is computed by using Machine learning algorithms. **Example:**

**TrainingSetYear(s) TestPredictionSetYear  
  
1970-2015 2016  
1970-2016 2017  
1970-2017 2018**

**DATASET AND FEATURES:**  The average temperature, the total rainfall, the average annual windspeed, number of days with rain, number of days with fog of previous years are stored in CSV file. These data were used to train the algorithms for weather forecasting in advance.