Procoder69

Project_Report:

Objective:

1.) Develop an algorithm to predict the sea surface temperature, useful for predicting the EL Nino oscillations.

Approach:

1.) My 1st task was to explore the nature of the dataset and understand the features in it.
2.) I tested the data on a few algorith like RNN and LSTM but these methods are for multivariate predictions and our data was a univariate one so i use the random forest classifier for the purpose.
3.) I referred to the paper ‘Random forest for sequence prediction’ and then used the random forest regressor.
4.) For data preprocessing I used linear interpolation to fill the null values .
5.) Since the EL Nino oscillations occur every few years , and the sea surface is dependent on the time of the year all input features were used except the ‘day’ column.

Conclusion:

1.) The final model chosen was random forest regressor and it gave and R2 score of .967 .
2.) The n_estimators was 350.