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A study on Daily Temperature Forecasting of North East India Region using Machine Learning models

Conventionally, numerical weather prediction models are used for the prediction of weather conditions worldwide. However, these models are not affordable for everyone due to their high-end hardware requirements. Nowadays, machine learning models are being used in various fields of Earth and atmospheric sciences including classification of remote sensing images, land use land cover, change detection, weather forecasting, detection and prediction of weather extremes, etc. because of the fact that they are data-driven, scalable, customizable and can be deployed on any devices. In this work, we are using different machine learning models for daily mean temperature forecasting. We are using time series remote sensing data for training and testing of the models. We have evaluated the regression models with different evaluation metrics such as RMSE, MAE, and R2 on the dataset. We have compared the results of the evaluation metrics to find the model giving the best predictions.

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