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Air Quality Analysis Using Machine Learning Models Under Python Environment

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Abstract : Air quality analysis using machine learning models is a method employed to assess and predict air pollution levels. This approach leverages the capabilities of machine learning algorithms to analyze vast amounts of air quality data and extract valuable insights. By training these models on historical air quality data, they can learn patterns and relationships between various factors such as weather conditions, pollutant emissions, and geographical features. The trained models can then be used to predict air quality levels in real-time or forecast future pollution levels. This application of machine learning in air quality analysis enables policymakers, environmental agencies, and the general public to make informed decisions regarding health, environmental impact, and mitigation strategies. By understanding the factors influencing air quality, interventions can be implemented to reduce pollution levels, mitigate health risks, and enhance overall air quality management. Climate change is having significant impacts on Morocco, affecting various aspects of the country's environment, economy, and society. In this study, we use some machine learning models under python environment to predict and analysis air quality change over North of Morocco to evaluate the climate change impact on agriculture.

Keywords : air quality, machine learning models, pollution, pollutant emissions
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