

# **WEATHER FORECASTING**

## **PROJECT ABSTRACT :**

This project aims to develop a machine learning-based weather forecasting model capable of delivering accurate and timely weather updates to users. Leveraging historical meteorological data and real-time atmospheric inputs, the model will predict short-term weather conditions such as temperature, precipitation, humidity, and wind speed. The system will employ advanced machine learning algorithms, including time series analysis, regression models, and neural networks, to enhance forecast precision.

The model's architecture will integrate a user-friendly interface to deliver weather updates across multiple platforms, including mobile and web applications. Additionally, the system will support real-time notifications and provide customizable weather alerts based on user preferences. The objective of the project is to improve the accuracy of forecasts while reducing processing time, making it highly applicable for weather-dependent industries such as agriculture, logistics, and emergency services. The project will contribute to providing users with reliable weather information, enabling better planning and decision-making in daily activities.

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