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**Predictive Analytics Applications for Weather Forecasting**

One of the most common applications of weather forecast data is to help plan events or business processes. For example, in retail, weather forecast data can be used to plan inventory for weather-influenced products such as warm or cold weather clothing or weather emergency related items in the event of severe weather. Meteorologists use computer models to help them forecast the weather. Studies show that the best forecasts are for about two days ahead. Predictive Analytics have shown that we have some accuracy forecasting as far as seven days.

In the article, Eric Floehr, founder, and CEO of ForecastWatch states, “Whenever an analyst or data scientist creates a model, they feed raw data into a machine learning system like a neural network or some linear regression system”. Which means that meteorologists try to take all the data they can possibly find, to integrate it all to make forecasts that will be as close to what happens as possible. While reading through the article, I found that AccuWeather was the most accurate provider for wind and precipitation forecasts and was a co-leader in accuracy for temperature forecasts. For temperature predictions, for high temperature forecasts, AccuWeather was the most reliable, while for low temperature forecasts, The Weather Channel was the most accurate.

As an up-level language of controlling and dealing with model production, the preeminent language of meteorology is Python programming language. Python makes it easy to consume weather data in a programmatic way so that you can perform analytics described above quickly, repeatedly and across multiple locations and time periods. Historical weather observation data helps businesses and individuals understand what happened in the past on particular days. This can be used to correlate to business metric to answer such questions as “Does rain affect my sales”? Performing statistical analysis of weather data in Python can be extremely valuable.

<https://www.dataversity.net/case-study-predictive-analytics-and-data-science-keep-an-eye-on-the-weather/#>

Zaino, Jennifer. “Case Study: Predictive Analytics and Data Science Keep an Eye on the Weather.” *DATAVERSITY*, 9 May 2019, www.dataversity.net/case-study-predictive-analytics-and-data-science-keep-an-eye-on-the-weather/#.