IM 532 3.0 Applied Time Series Forecasting

30/06/2020

Assignment

Due date: 14 July 2020

Bike Sharing Demand

Forecast use of a city bikeshare system

You are provided hourly rental data spanning two years. For this competition, the training set is comprised of the first 19 days of each month, while the test set is the 20th to the end of the month. You must predict the total count of bikes rented during each hour covered by the test set, using only information available prior to the rental period. You may use the other variable in the dataset. Prepare a brief report to present your analysis and results.

Other variables

datetime - hourly date + timestamp

season - 1 = spring, 2 = summer, 3 = fall, 4 = winter

holiday - whether the day is considered a holiday

workingday - whether the day is neither a weekend nor holiday

weather -

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1: Clear, Few clouds, Partly cloudy, Partly cloudy

2: Mist + Cloudy, Mist + Broken clouds, Mist + Few clouds, Mist

3: Light Snow, Light Rain + Thunderstorm + Scattered clouds, Light Rain + Scattered clouds

4: Heavy Rain + Ice Pallets + Thunderstorm + Mist, Snow + Fog
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temp - temperature in Celsius

atemp - "feels like" temperature in Celsius

humidity - relative humidity

windspeed - wind speed

casual - number of non-registered user rentals initiated

registered - number of registered user rentals initiated

count - number of total rentals

Source: https://www.kaggle.com/c/bike-sharing-demand/overview