London Bike Share Data Analysis

Caroline Sklaver & Sayra Moore

Description of Dataset

"cnt" - the count of a new bike shares

"is_holiday" - boolean field - 1 holiday / 0 non holiday

"is_weekend" - boolean field - 1 if the day is weekend

"season" - category field meteorological seasons: 0-spring ; 1-summer; 2-fall; 3-winter.

"timestamp" - timestamp field for grouping the data

"t1" - real temperature in C

"t2" - temperature in C "feels like"

"hum" - humidity in percentage

"wind_speed" - wind speed in km/h

"weather_code" - category of the weather

"is_holiday" - boolean field - 1 holiday / 0 non holiday

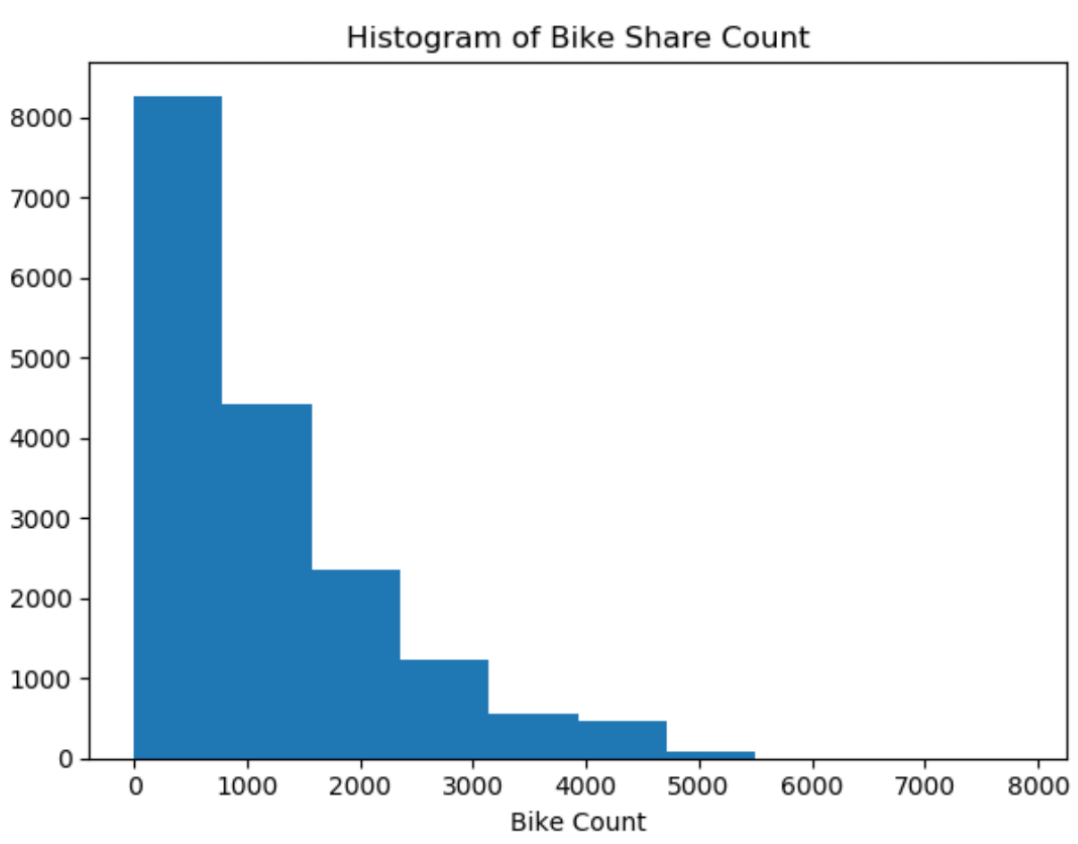
"is_weekend" - boolean field - 1 if the day is weekend

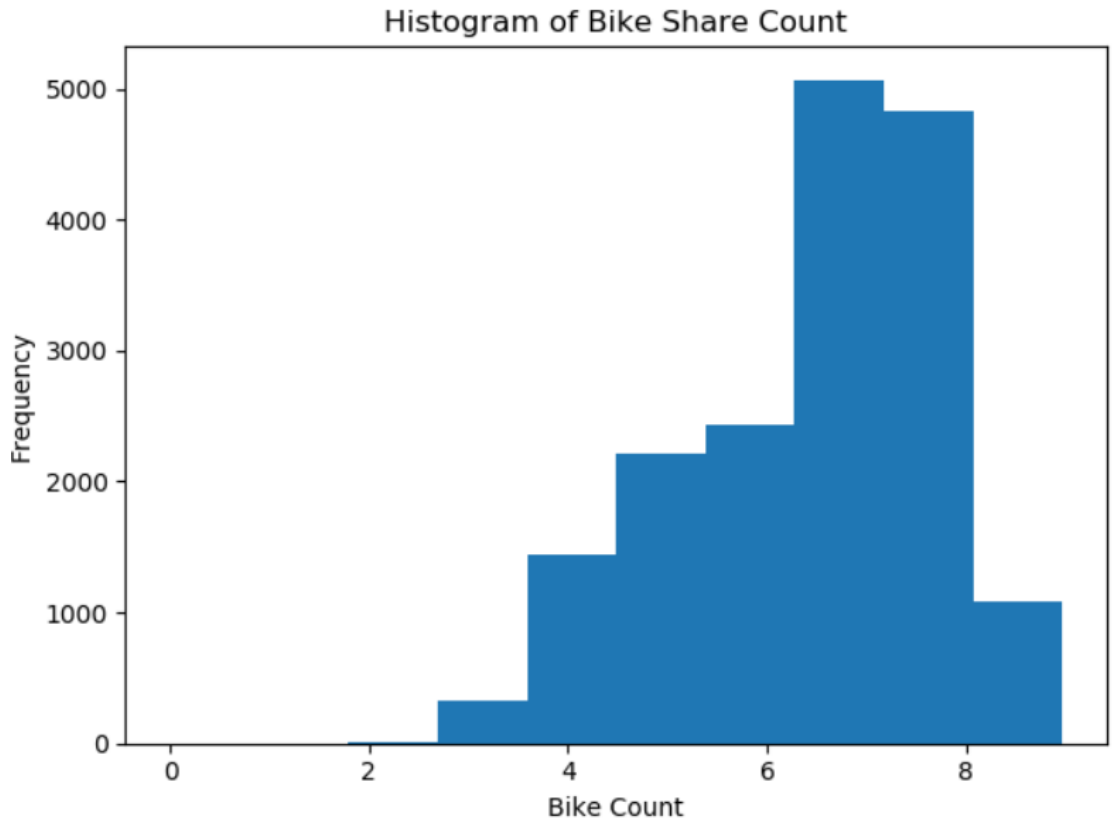
"season" - category field meteorological seasons: 0-spring ; 1-summer; 2-fall; 3-winter.

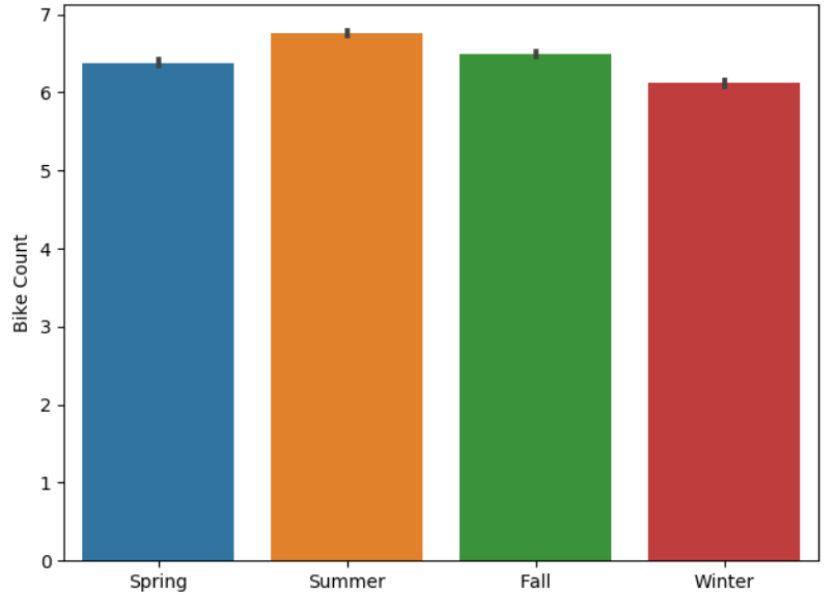
Descriptive Statistics

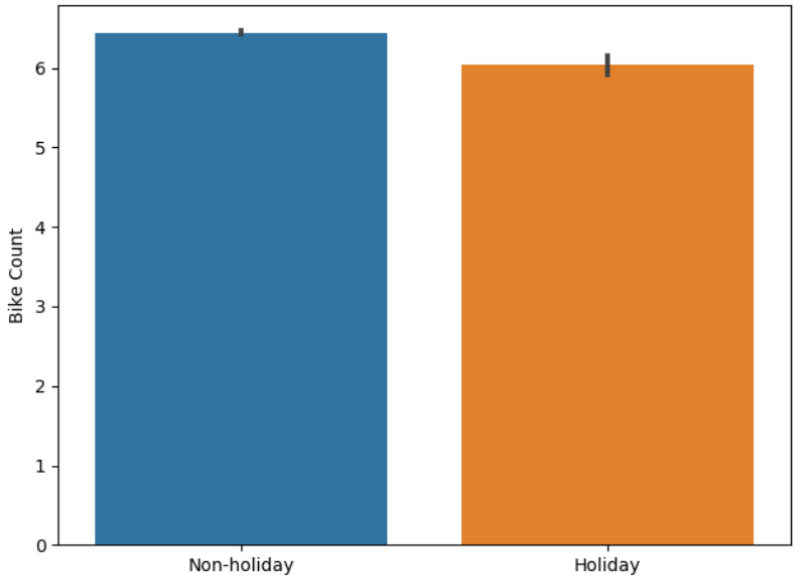
Bike Share Count Distribution

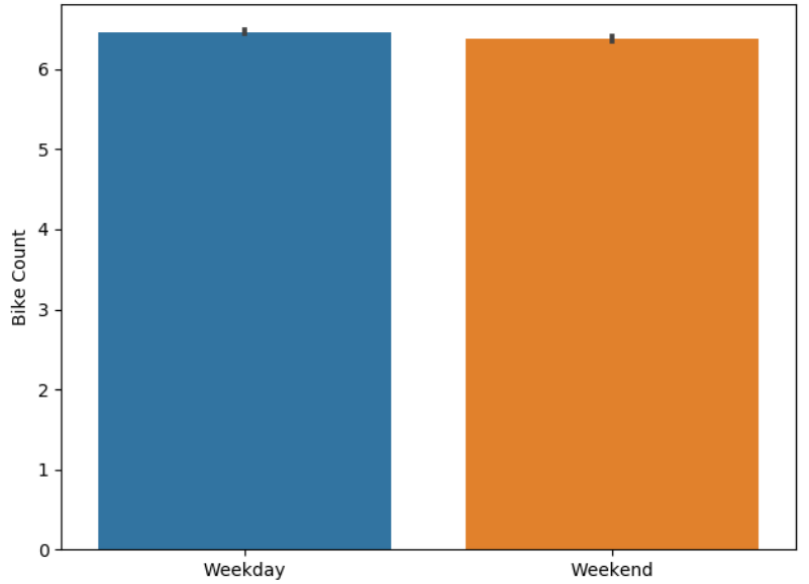
RIght-skewed



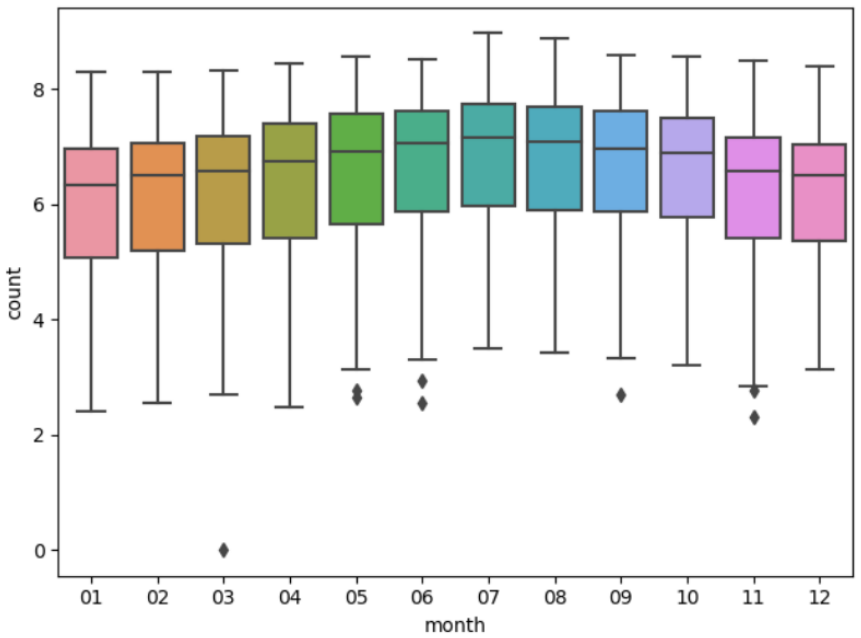


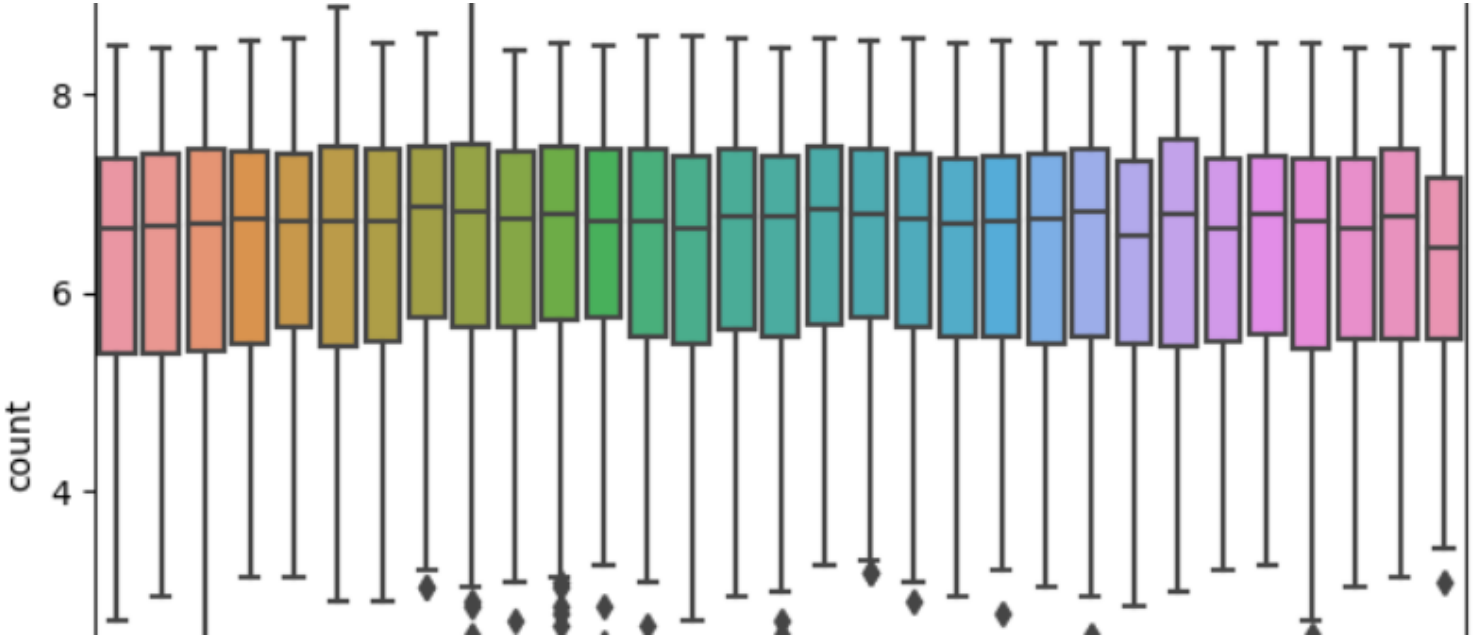


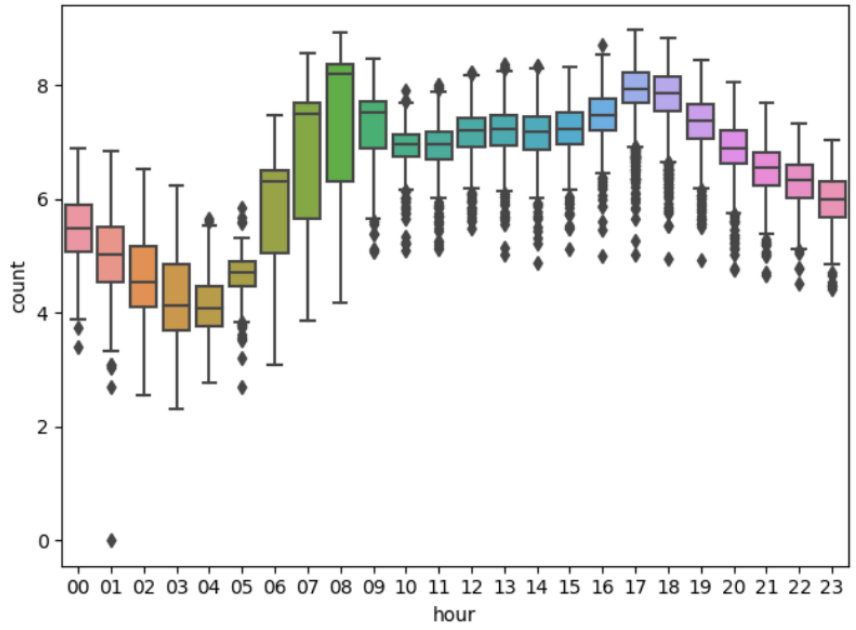




Season, Holiday, Weekend



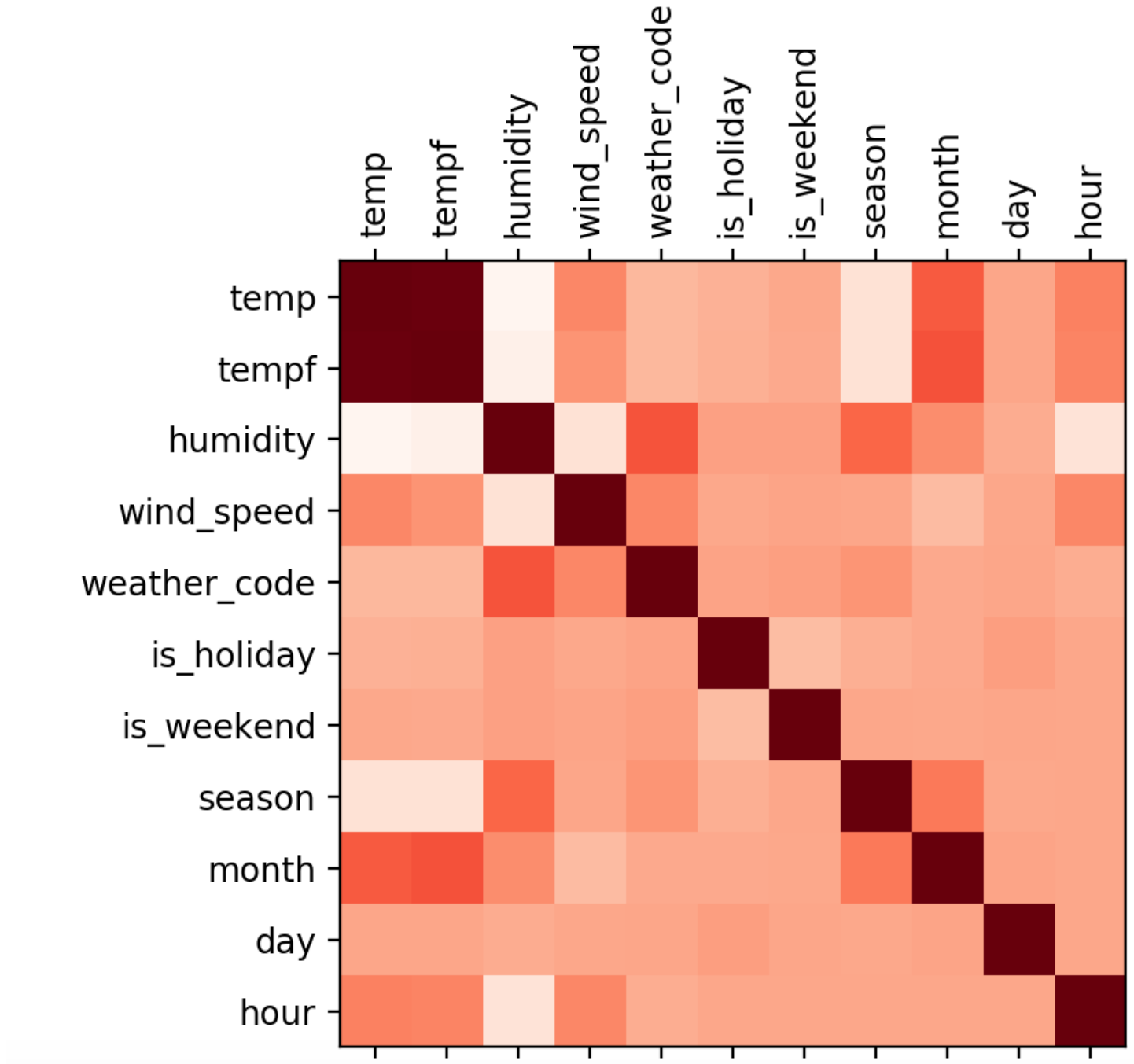




Month, Day, & Hour

Correlation Plot

- Temperature & Temperature "feels"
- Humidity & Weather code, Season
- Month & Temperature



Description of Model

Simple Linear Regression

Multiple Linear regression

Simple Linear Regression

$$y = b_0 + b_1 * x_1$$

Multiple Linear Regression

Dependent variable (DV) Independent variables (IVs)

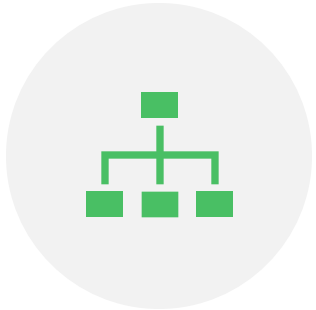
$$y = b_0 + b_1 * x_1 + b_2 * x_2 + \ldots + b_n * x_n$$

Demo: Graphical User Interface

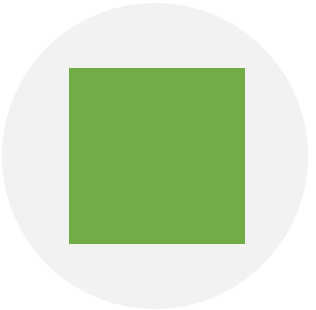
Conclusions

THE 1ST TIME RUNNING THE MODEL WE GOT A 30.7% R-SQUARED

THE 2ND TIME RUNNING THE MODEL WE GOT A 44.8% R-SQUARED



WE COULD NOT RUN CLASSIFICATION MODELS BECAUSE OUR TARGET WAS NOT BINARY



OVERALL, NOT A GREAT MODEL IN PREDICTING COUNT OF BIKE SHARES

References

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