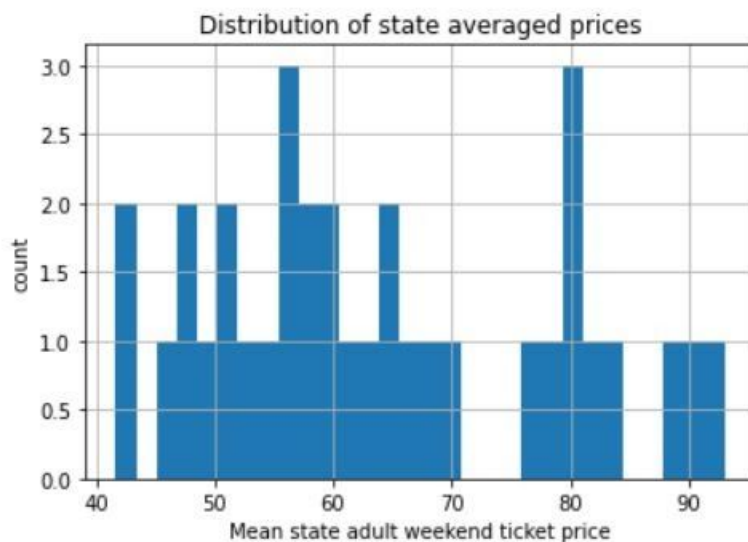


Big mountain resort

Abstract:

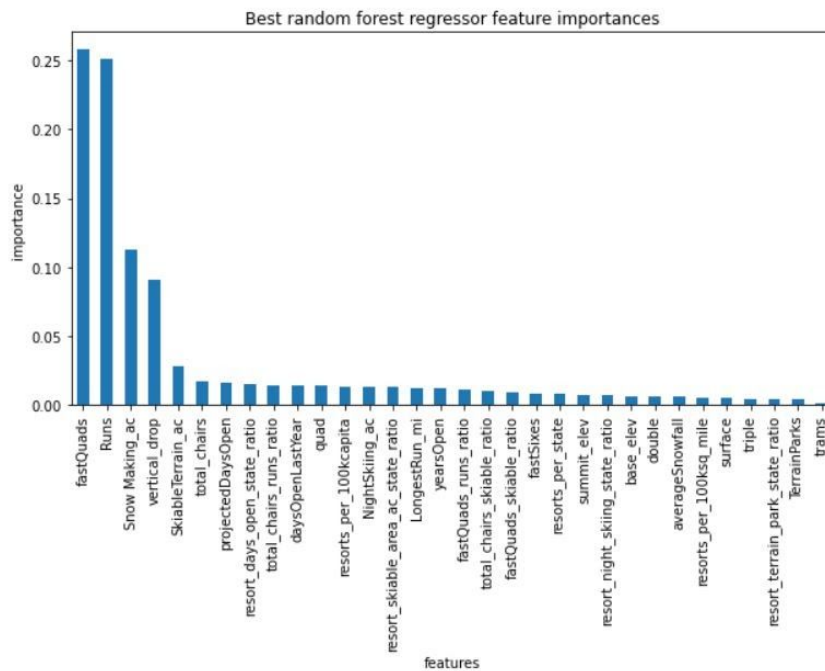
Ski resorts have always been creating a fun and exciting environment for families and friends that gather to spend good quality time together. Each resort has its own unique elements and facilities that could make it more desirable than others. This variation may also introduce a price difference based on the features of each resort.

In the graph below, we demonstrate the average price distribution count by state :



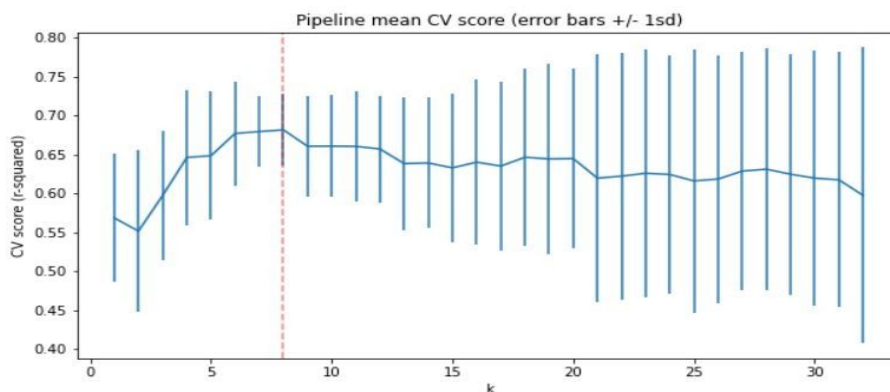
Case study:

In our previous research and analysis, our task was to have a data driven solution to identify whether Big mountain resort was leveraging all its facilities to maximize revenue and cover the operation cost of a new chair that has been recently installed. Big mountain has a ticket price set at \$81. In order to determine an accurate estimate on what the price should be, our approach was to utilize the data collected on all other resorts to help us adjust Big Mountain ticket price accordingly. The original data was provided in an excel format with information about each resort's location, state ,size and 20+ other features that specify actual details about various components of each resort. After we prepped our data, eliminated corrupt rows, deleted useless observations and identified our most important features, it was time to start assembling together our price prediction model.



Model:

In effort to refine our prediction model and use the best methods that suit our case, many algorithms have been tested with rotations of different number of features and missing values replacement strategies. Finally, random forest was used with the selection of the best 8 features.



Conclusion :

Once our model was ready, we placed our big mountain resort input features to arrive at an estimated price of **\$95**. With a mean absolute error of \$10. Which means that the predicted number could have been even higher.