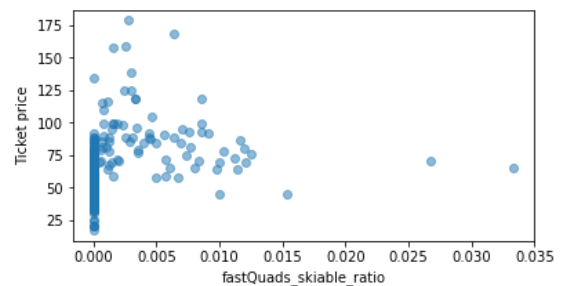
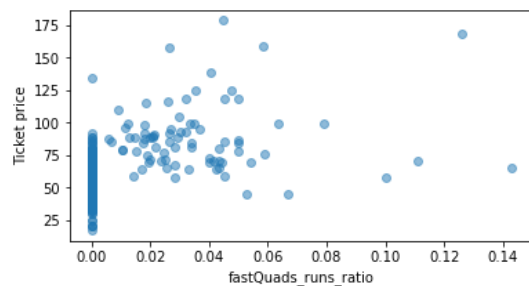
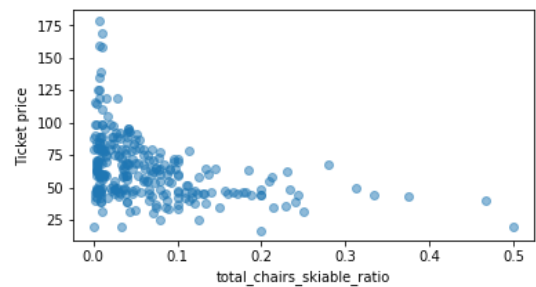
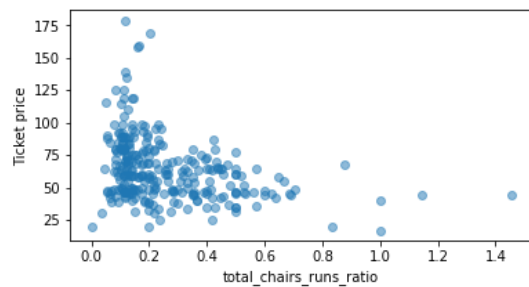
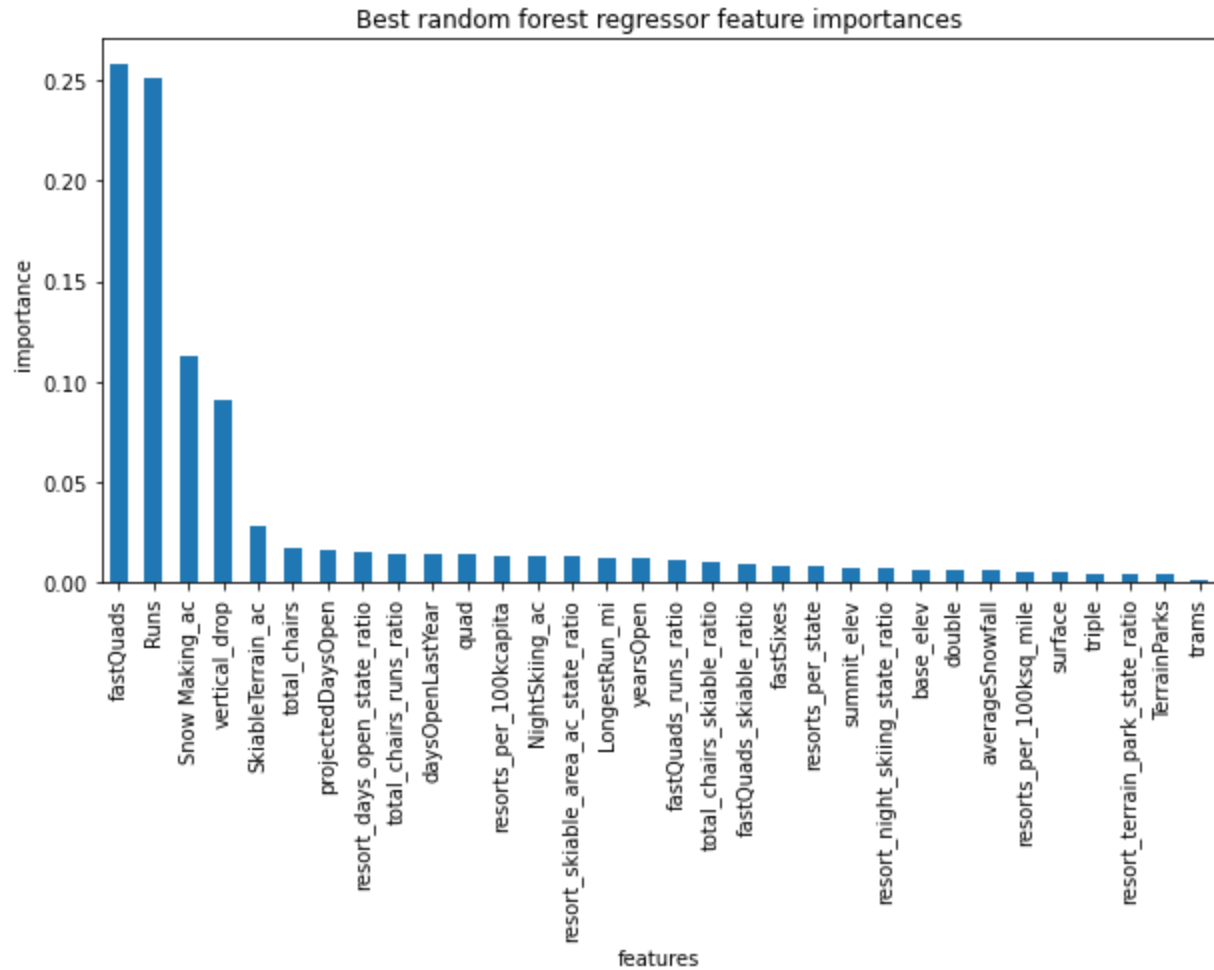


Guided Capstone Project Report - Miguel Cordova

Big Mountain Resort in Montana has been looking for ways to cut costs, increase revenues, and implement a more business minded price for tickets. The data given was good although some key missing info was the amount of visitors/customers per year. The cleaning process went well. The cleaning process dropped prices for weekdays as most resorts within the region had prices that were the same on weekdays and weekends (weekdays also had a larger amount of missing values). Though the cleaning prices showed some insight, the data exploration provided many more. There seemed to be a strong correlation between ticket prices and competition of ski resorts, fastQuads, amount of chairs, and vertical drop.

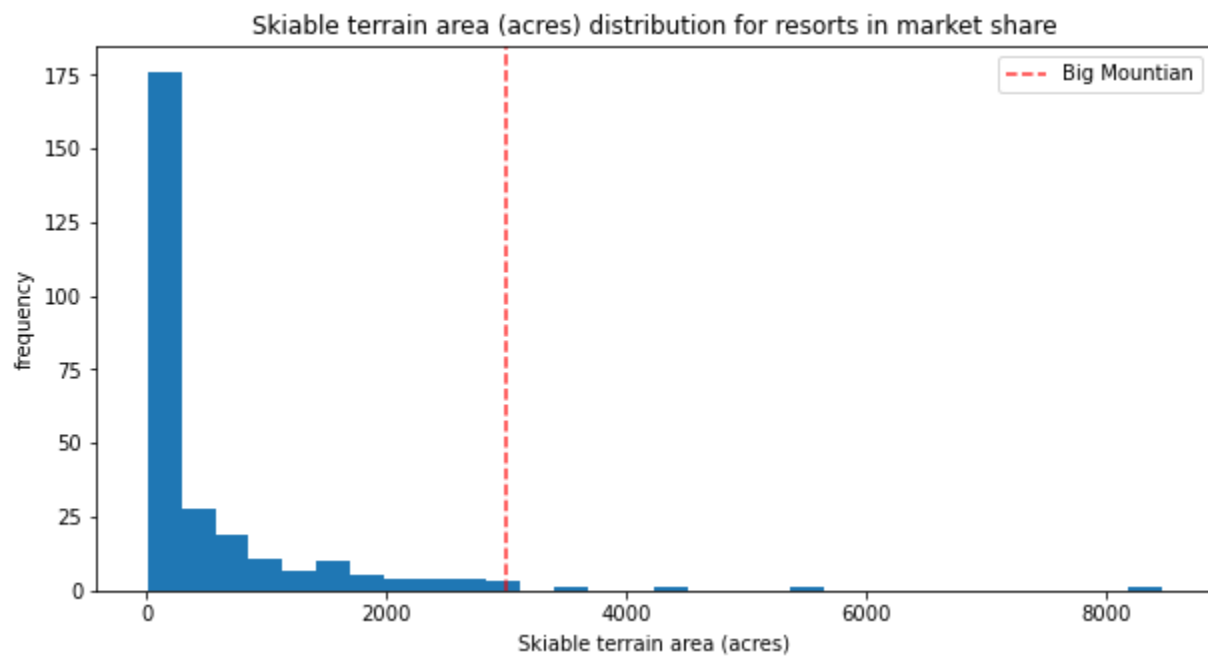
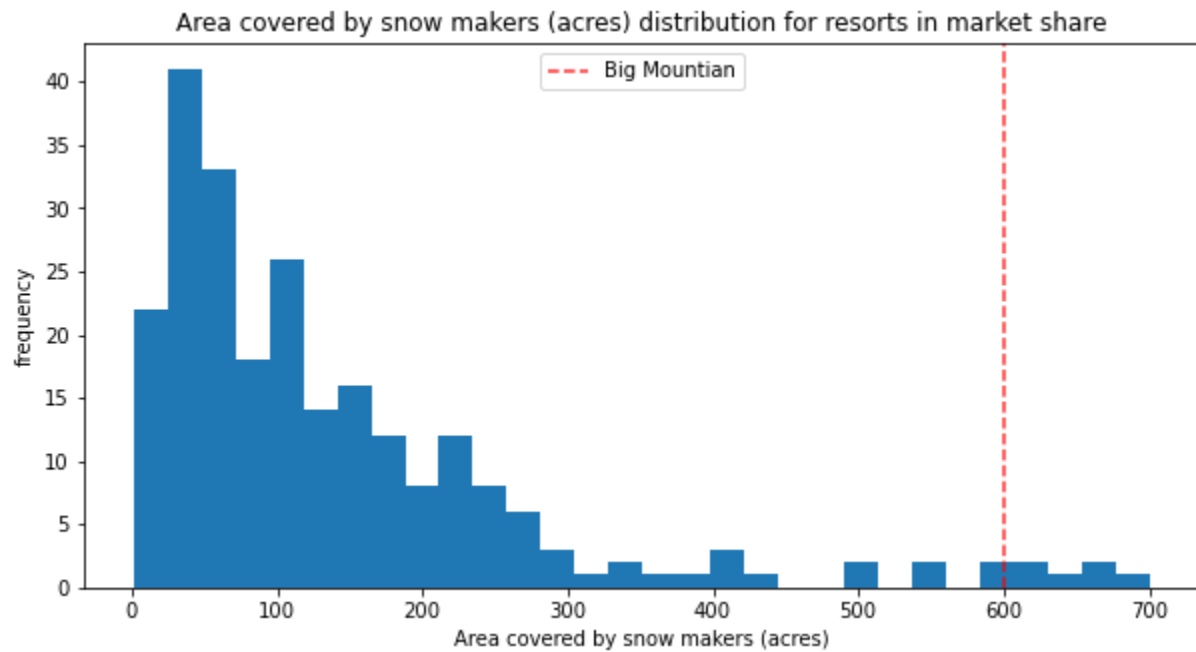


The next step was taking these insights and preparing them from modeling. This step showed an indication of fast quads, runs, vertical drops, and snow making being the most important for ticket price.



This data was pulled from modeling through linear regression and random forests. The Random Forest was chosen for modeling because the error rate was lower than the linear regression model. This leads to our last step of comparing points and developing strategies. The model showed that Big Mountain Resort was underpricing the ticket price by \$14 dollars (current price is \$81, suggested price \$95). This is due to Big Mountain Resort being at the top of the range for many fields.

For example:



These fields showed the best scenario of increasing vertical drop ,area covered with snow makers very slightly, and adding one chair lift(already done) to give an expected increase of price of \$1.99, expected to raise total revenue by \$3,474,638. This is the recommended course of action well also raising prices to test the models suggested price of \$95 per ticket.

