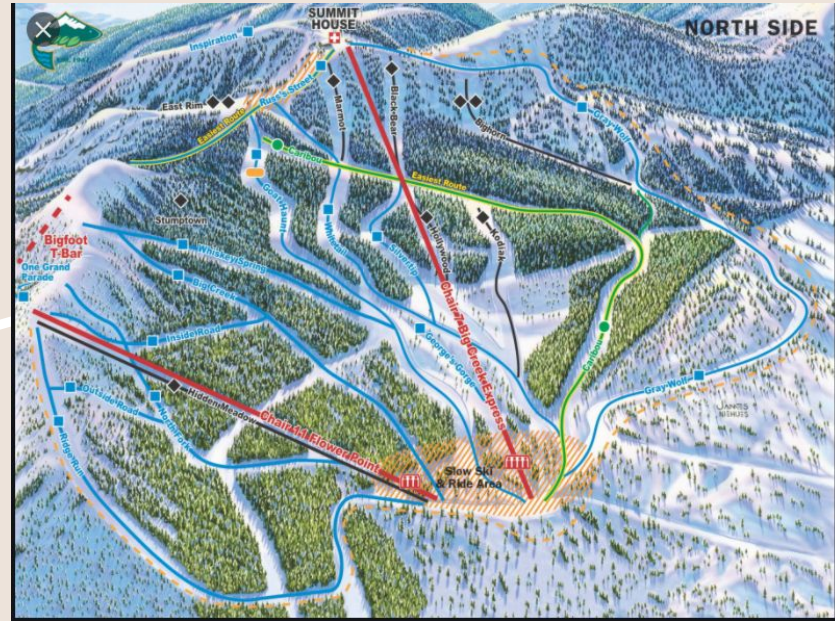


# Recommendations for Big Mountain

A dark blue diagonal gradient bar that starts from the bottom left and extends towards the top right, covering the lower half of the slide.

# Purpose

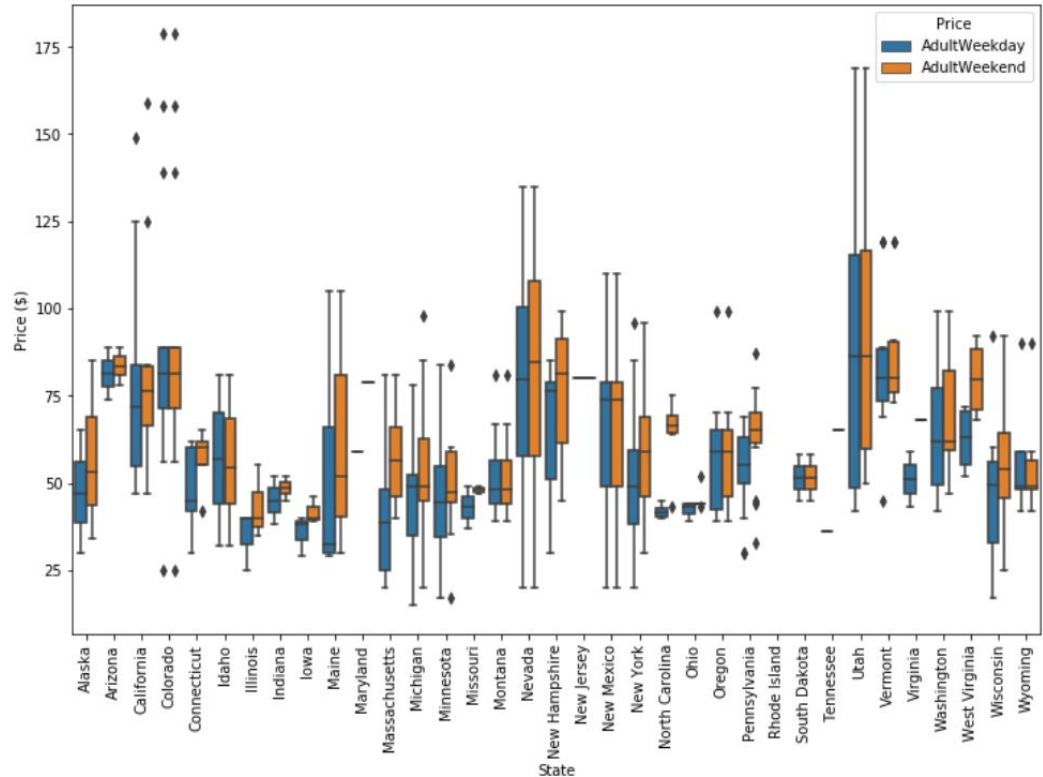
- Long-standing suspicion Big Mountain is not maximizing profits, relative to its position in market
- Previous strategy: charge a premium above the average price of resorts
- What facilities matters more to visitors, so that they will be willing to pay more?
- Need a **new predictive pricing model** for ski resort tickets in our market segment, based on data
- Aid in future facility investment plans too!



# Overview of State Prices

This graph gives an overall view of how the average weekday and weekend prices vary for each state. In Montana, there is little variability.

Other visualization also shows that weekend prices being higher than weekday prices seem restricted to sub \$100 resorts.

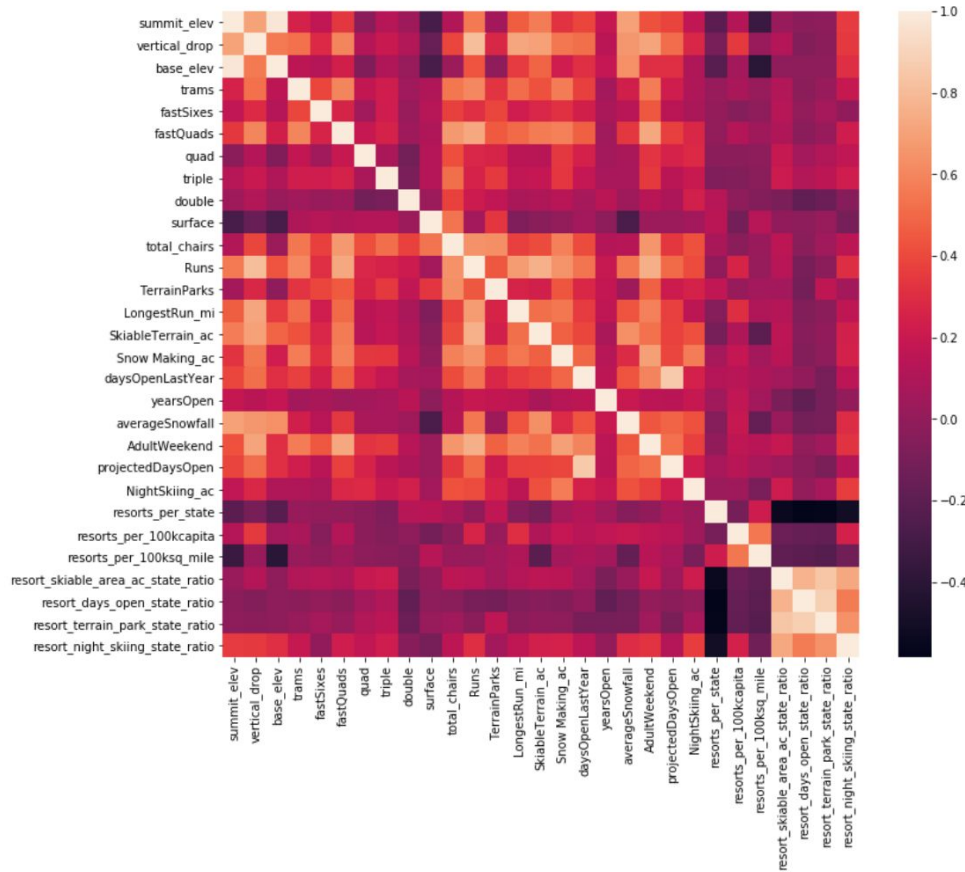


# Recommendations

Out of the four shortlisted scenarios, the model predicted the Big Mountain Resort should add a run, which would increase the vertical drop by 150 ft, and install an additional chair lift to bring skiers back up.

The increases support for a ticket price hike by \$8.46.

Over the season, this would bring in **\$14,811,594**



Initial EDA showed these correlations for AdultWeekend price with:

- FastQuads
- Runs
- Snow making\_ac
- Vertical drop
- Resort night skiing state ratio
- Total chairs

Other takeaways:

- Visitors seem to value more guaranteed snow
- More night skiing provided in more densely populated areas

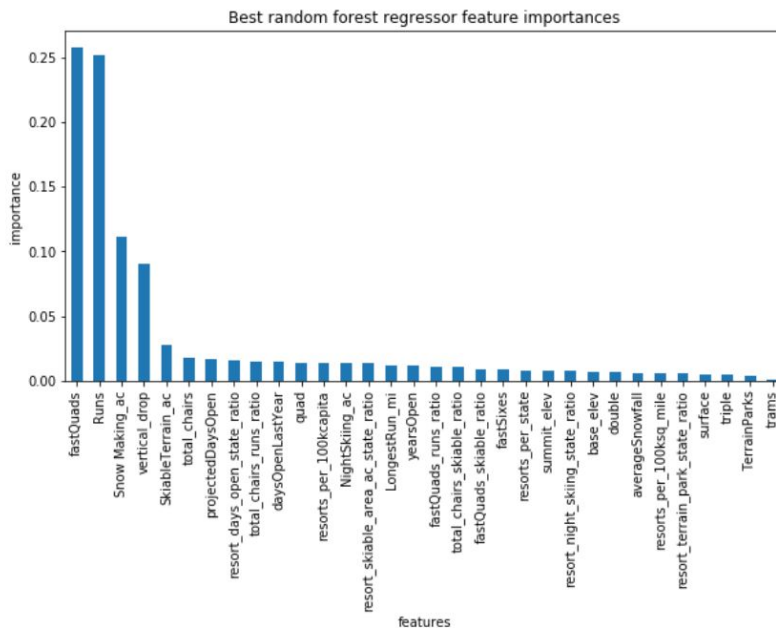
Feature Correlation Heatmap

# Models

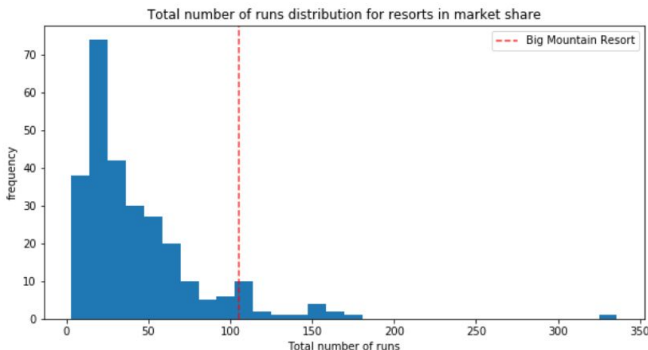
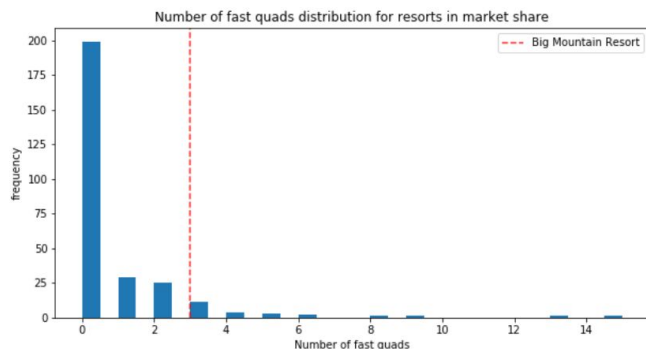
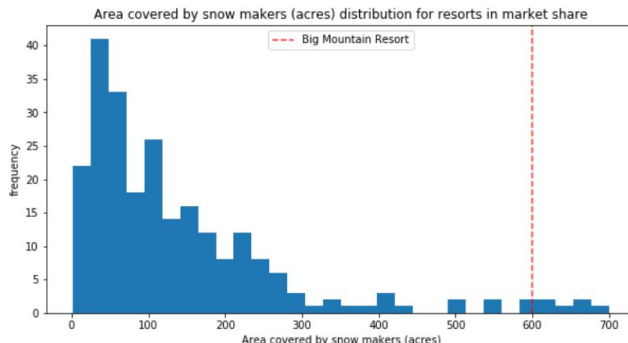
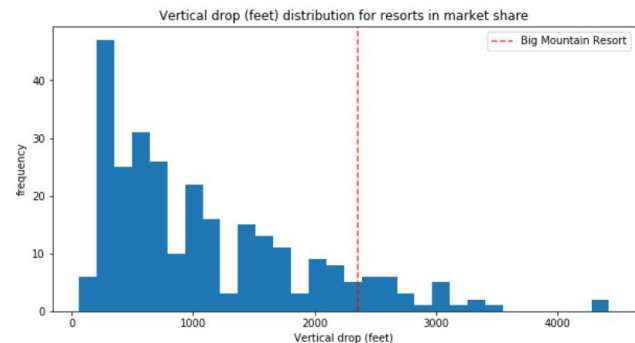
## Linear Regression

<b>vertical_drop</b>	10.767857
<b>Snow Making_ac</b>	6.290074
total_chairs	5.794156
<b>fastQuads</b>	5.745626
<b>Runs</b>	5.370555
LongestRun_mi	0.181814
trams	-4.142024
SkiableTerrain_ac	-5.249780

## Random Forest



# How Big Mountain Compares



For all these features, BM is on the higher end of the distribution

Great sign that BM is underselling the ticket price and can increase it to generate more revenue!

# Conclusion

The data that visitors care a significant amount fastQuads, Vertical Drop, Runs, Chairlifts and guaranteed snow that they are willing to pay more.

Revenue will increase ~15 million if BM increases the vertical drop by 150 ft, making more runs and adding another chair lift by raising the ticket price by \$8.46.