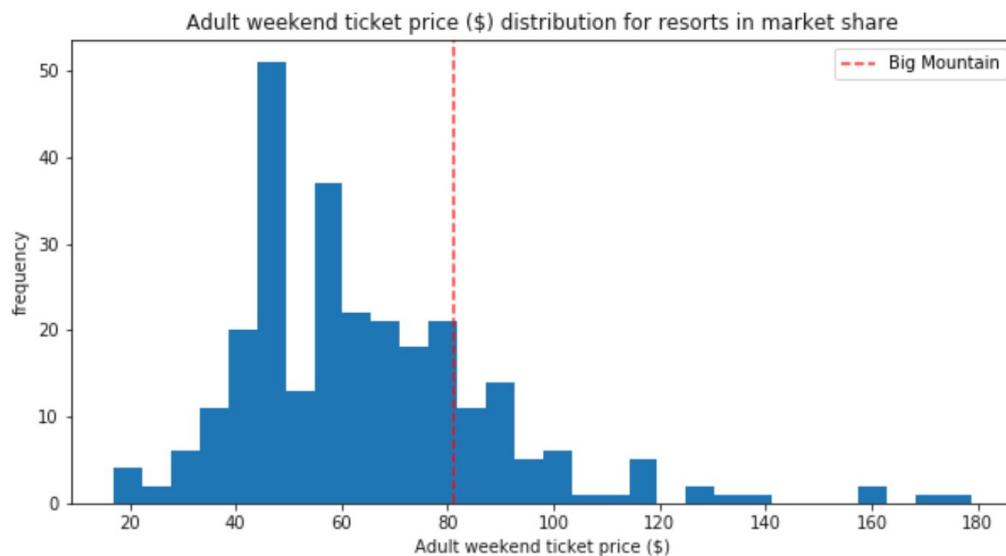


Report on pricing model selection of ticket value for Big Mountain ski resort

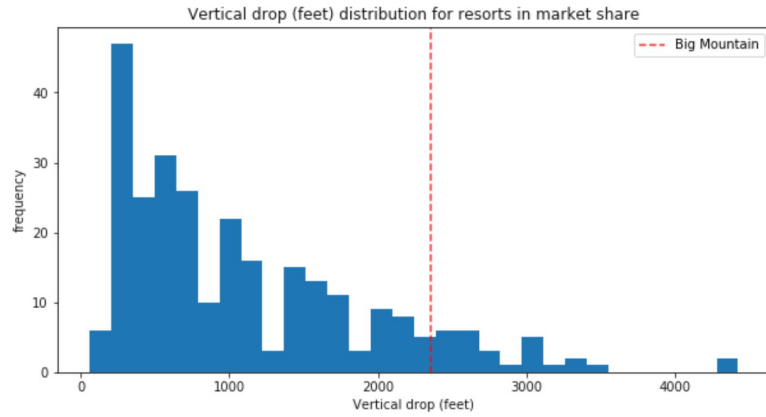
Lead data scientist: Gabrielle Wald

Summary: A model to select a better ticket price for Big Mountain resort was created based on resorts on their segment. The dataset utilized contained data for 330 resorts across the United States. It included information such as ticket prices, summit elevation, vertical drop, terrain parks, total number of chairs, number of runs, and other relevant data. The current ticket price at Big Mountain ski resort is \$81. The expected number of visitors is on average 350,000 over the season.



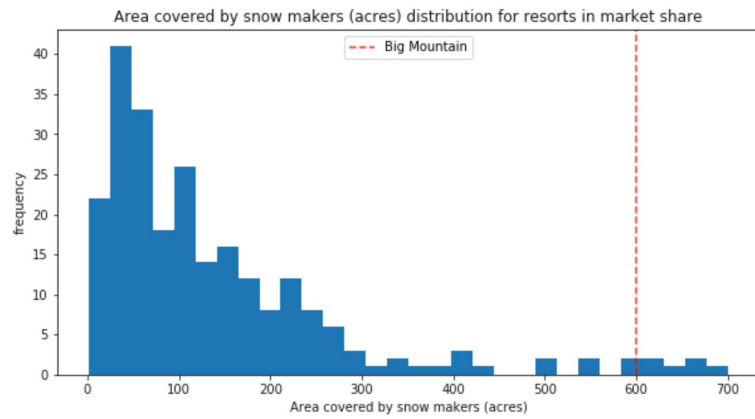
Results:

1. The model prices Big Mountain tickets at \$94.22, even with an expected error of \$10.39. It suggests there is room to increase ticket prices.
2. Features that came up as appealing to visitors and justify higher prices are:
 - a. **Vertical_drop**
 - i. Big Mountain is doing well for vertical drop, but there are still a few resorts with a greater drop.



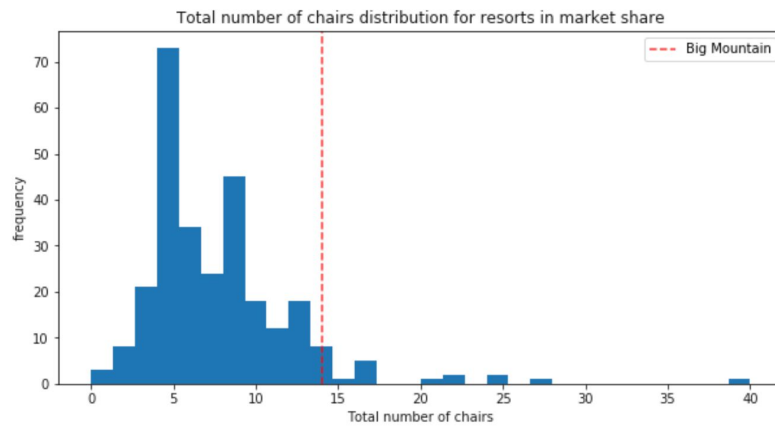
b. Snow Making_ac

- i. Big Mountain is very high up the league table of snowmaking area.



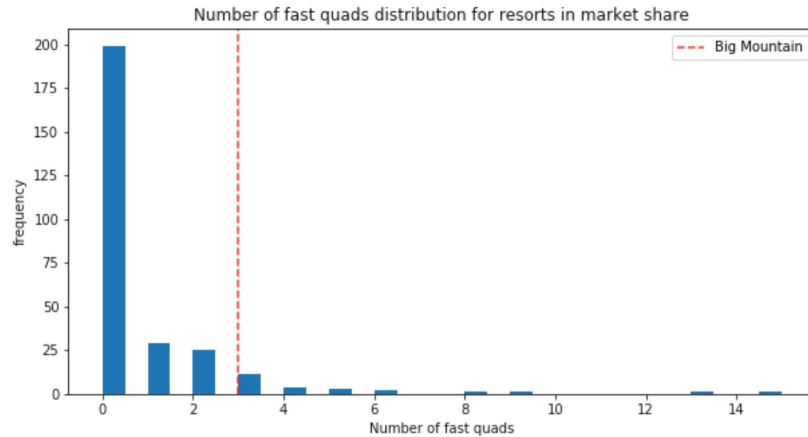
c. Total_chairs

- i. Big Mountain has amongst the highest number of total chairs, resorts with more appear to be outliers.



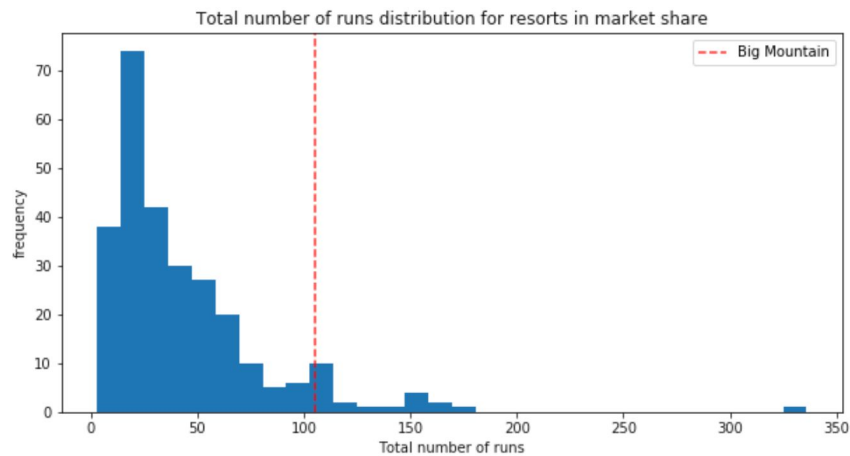
d. fastQuads

- i. Most resorts have no fast quads. Big Mountain has 3, which puts it high up that league table. There are some values much higher, but they are rare.



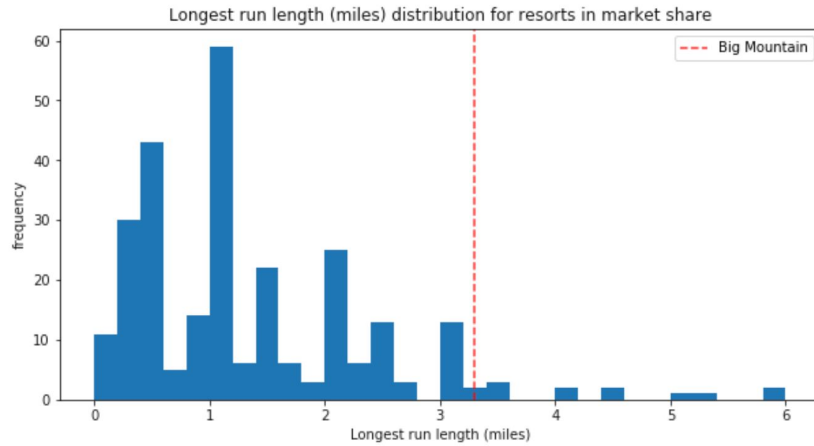
e. Runs

- i. Big Mountain compares well for the number of runs. There are some resorts with more, but not many.



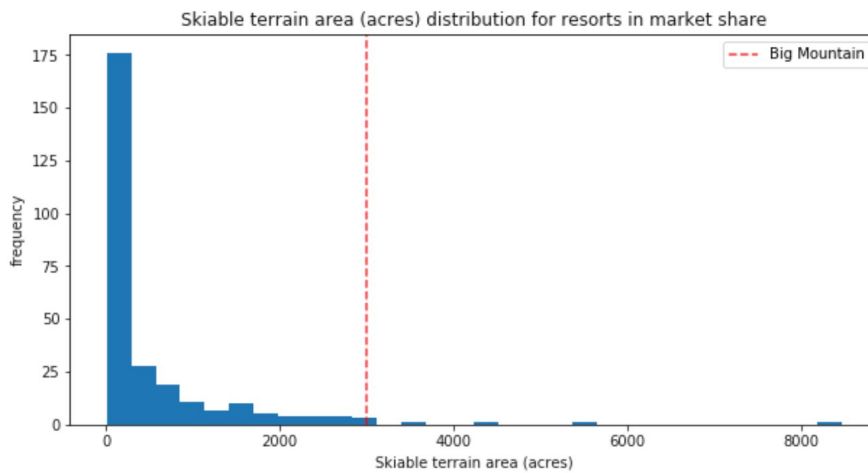
f. LongestRun_mi

- i. Big Mountain has one of the longest runs. Although it is just over half the length of the longest, the longer ones are rare.



g. SkiableTerrain_ac

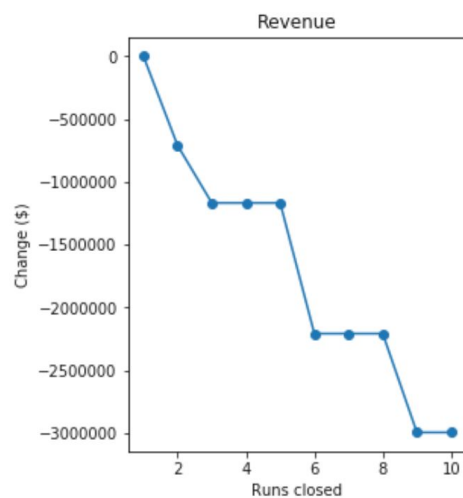
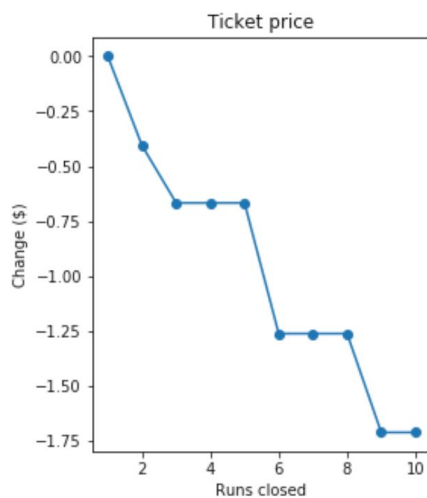
- i. Big Mountain is amongst the resorts with the largest amount of skiable terrain.



3. Potential scenarios for cutting cost or increasing revenue from ticket prices:

a. Permanently closing down up to 10 runs

- i. Closing runs reduce support for ticket price and revenue



- b. Increase the vertical drop by adding a run to a point 150 feet lower down, requires the installation of an additional chair lift, no additional snow making coverage needed
 - i. This scenario increases support for ticket price by \$1.99. Over the season, the expected return would be \$3,474,638
- c. Increase the longest run by 0.2 mile to boast 3.5 miles length, requires additional snow making coverage of 4 acres
 - i. This makes no difference whatsoever

Conclusion: The model supports the increase of ticket prices up to \$94.22. This would represent an increase of \$4,627,000 in revenue. In order to increase ticket prices by another \$1.99, putting total ticket price at \$96.21, Big Mountain can increase the vertical drop. This would represent a total revenue of \$33,673,500, an increase of \$5,323,500 compared to current revenue.