

Pricing Strategy

Big Mountain Resort

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PROBLEM SUMMARY

- Ticket pricing strategy at Big Mountain Resort has been just to price at a certain premium over the average market prices.
- This is very vague and arbitrary.
- We need to develop a better data driven pricing strategy.
- With the nationwide resort data :
 - ☐ We can find out the actual value of the features in the resort.
 - ☐ We can also find the features that most contribute to ticket price and take action.

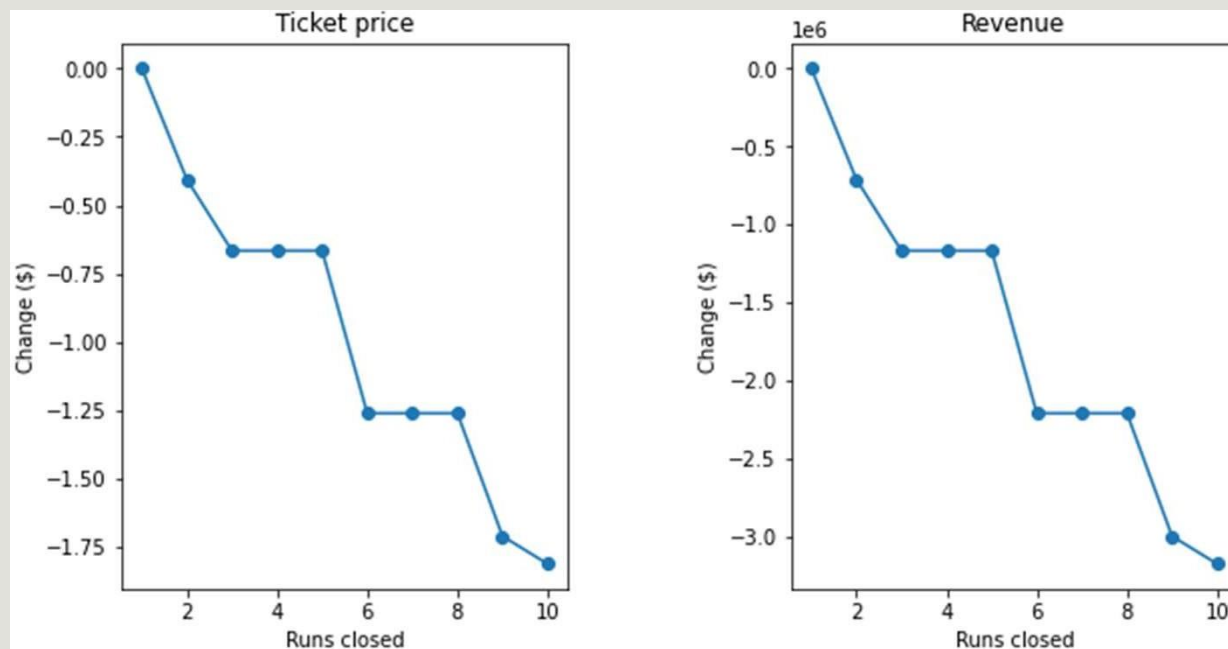
Recommendation and key findings

- **About ticket price**

Big Mountain Resort supports a ticket price of \$95.87 with a mean error of \$10.39, against the current \$81.00.

(Considering 350,000 seasonal visitors, each spending 5 days)

- **About permanently closing down up to 10 of the least used runs**



Recommendatio and key findings

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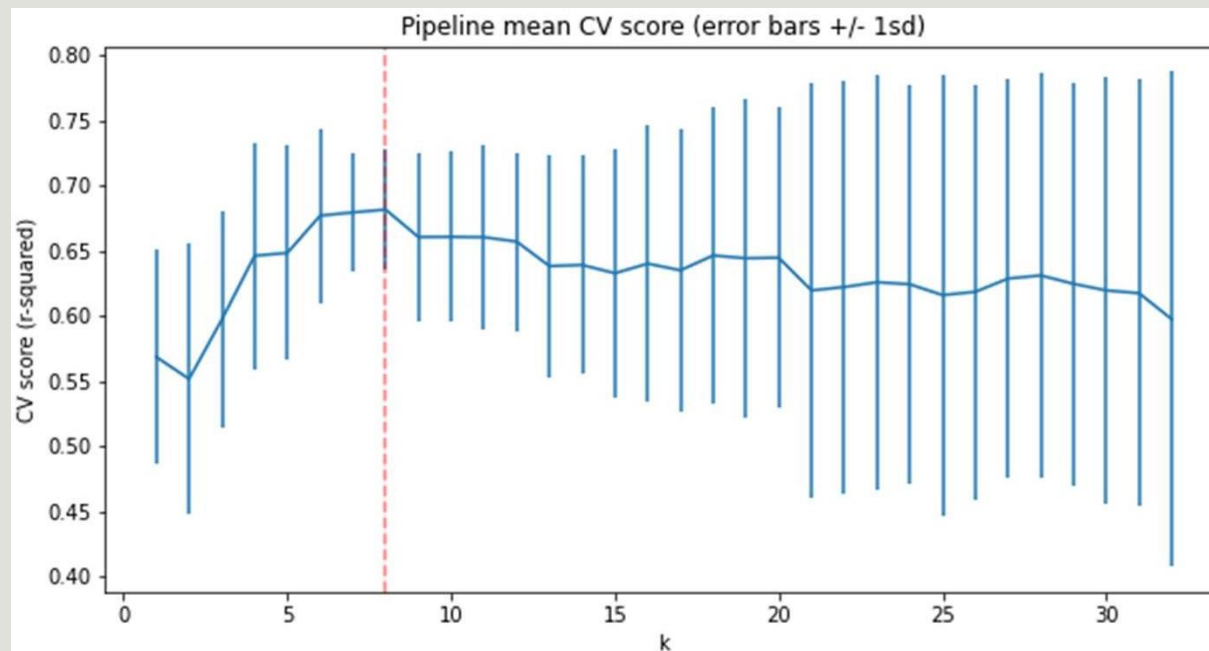
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- About increasing the vertical drop by adding a run to a point 150 feet lower down + installation of an additional chair
 - Increases support for ticket price by \$1.99
 - \$3474638 increase in ticket income over the season
 - About additional 2 acres of snow making coverage to above scenario
 - Same as above!
 - Such a small increase in the snow making area makes no difference!
 - About increasing longest run by 0.2 miles + add snow making coverage of 4 acres
 - No difference whatsoever.
 - Longest run is not a very important feature influencing pricing.

Modeling results and analysis

1. MEAN OF PRICES MODEL

Mean Error of: \$17.92 on train data, \$19.13 on test data

2. LINEAR REGRESSION MODEL



Modeling results and analysis

2. LINEAR REGRESSION MODEL

Feature importance coefficients

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

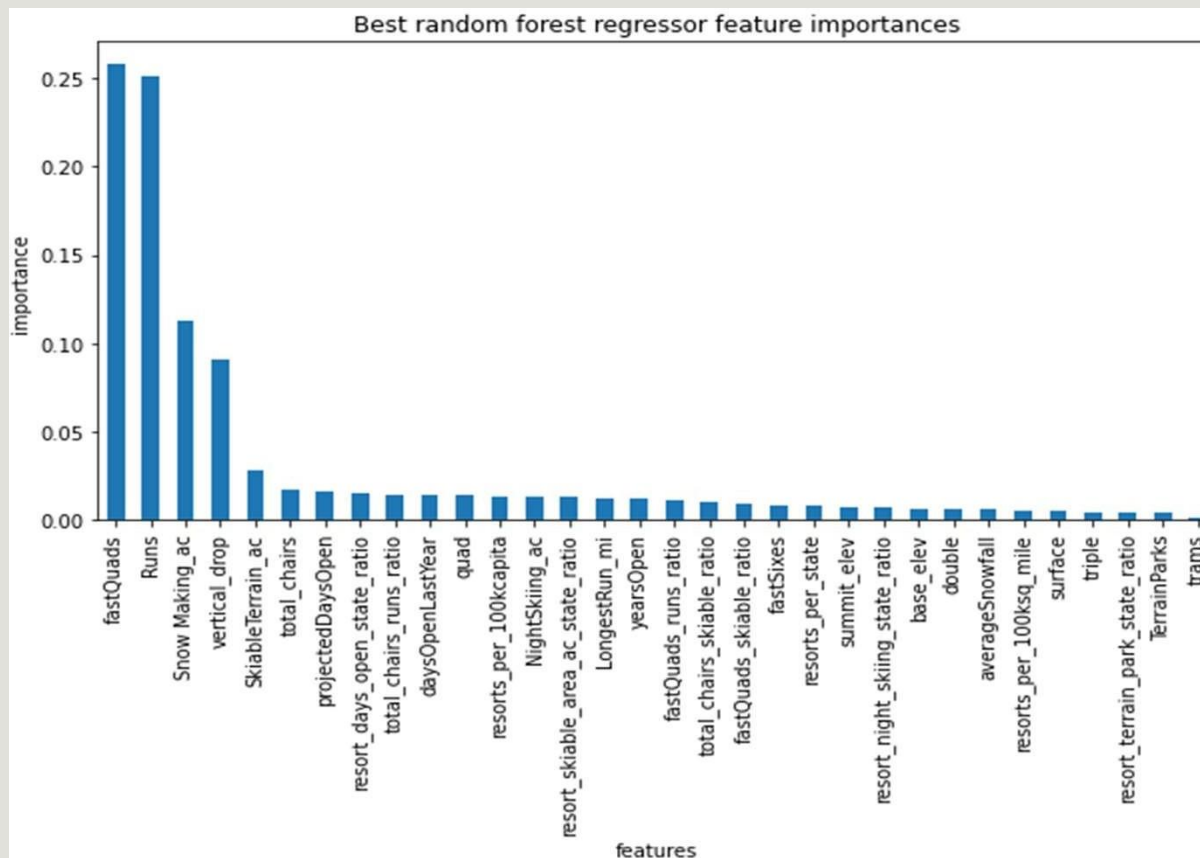
Mean Error of :
\$10.50 on train data
\$11.79 on test data

Modeling results and analysis

3. RANDOM FOREST MODEL

Best model was with 69 trees

Feature importance

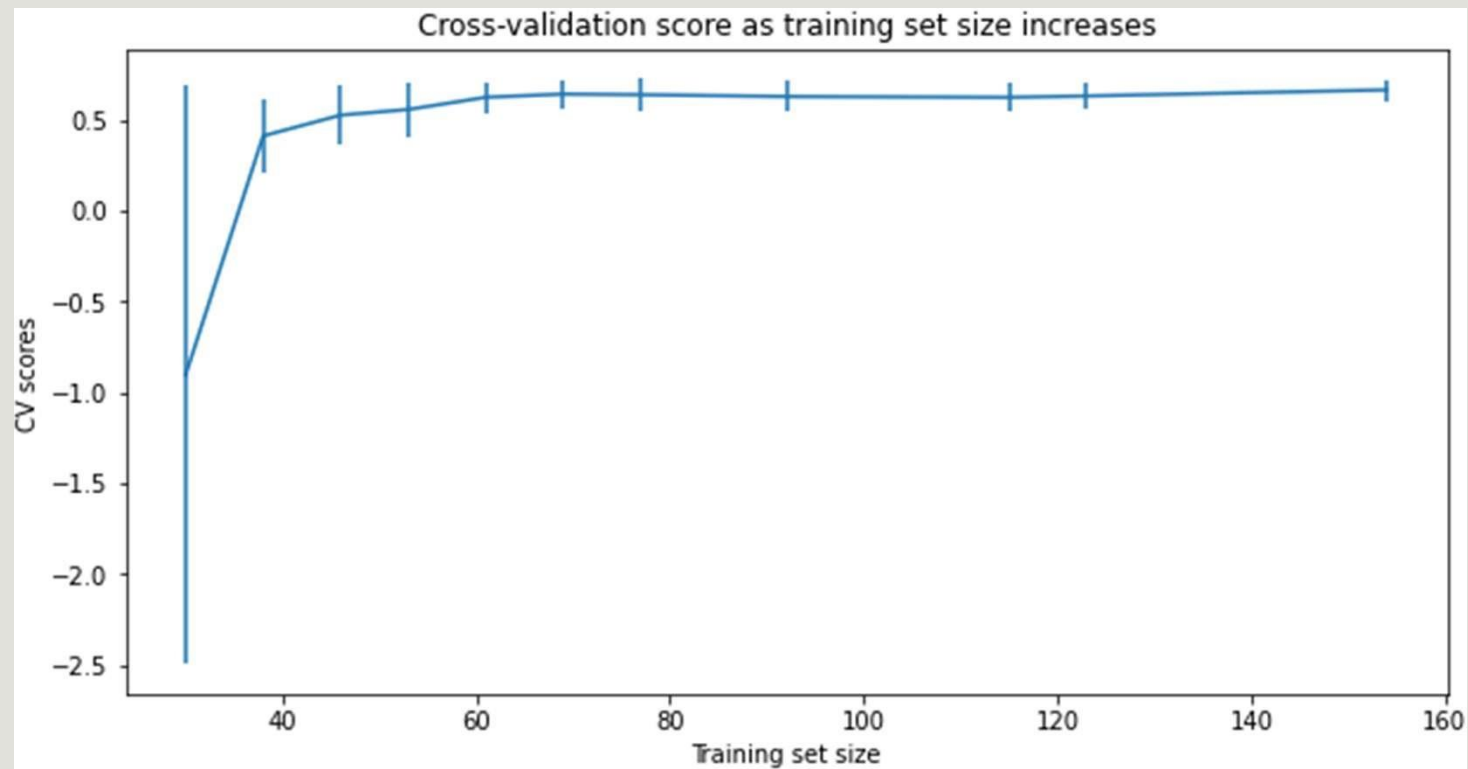


Mean Error of :
\$9.64 on train data
\$9.54 on test data

Modeling results and analysis

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DATA QUANTITY ASSESSMENT



More than adequate data quantity

Summary

MODEL RESULTS

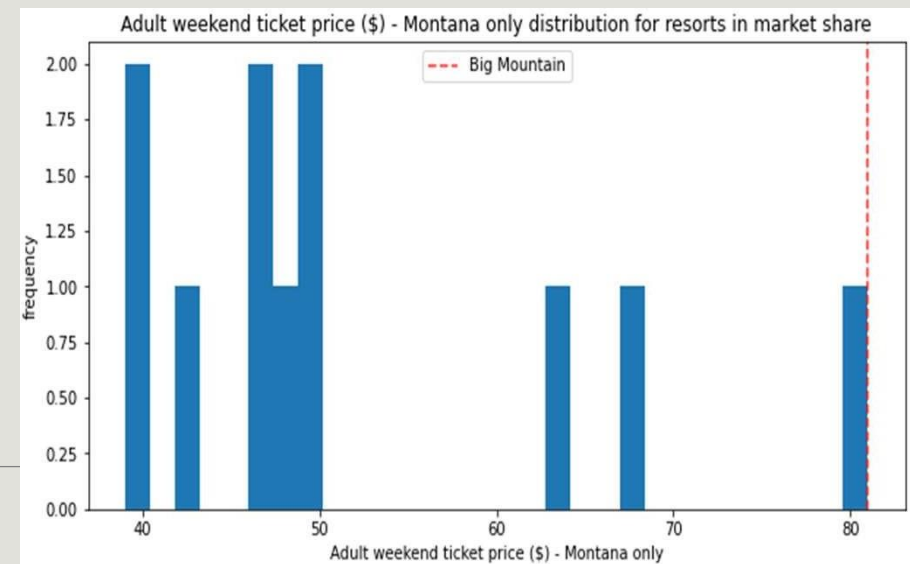
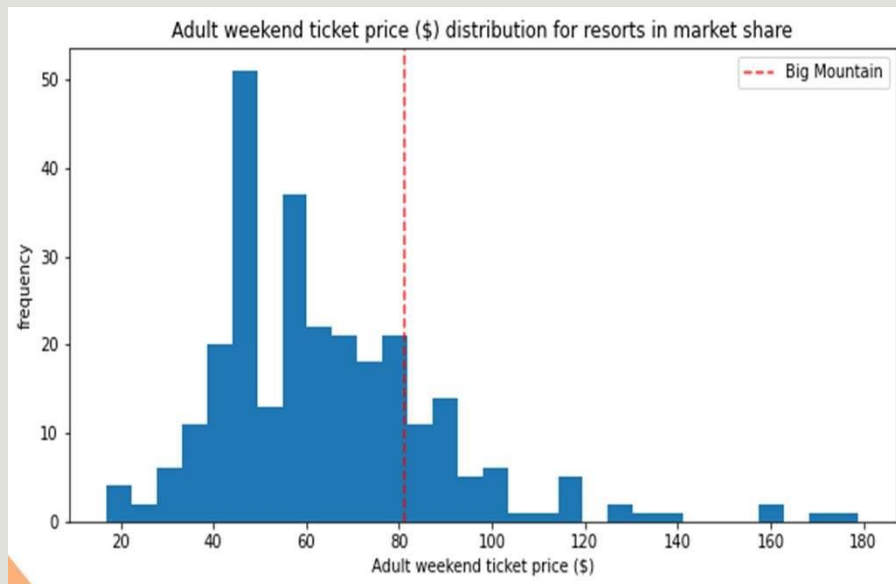
	Error (train)	Error (test)
• Mean of prices:	17.92	19.13
• Linear Regression:	10.50	11.79
• Random Forest:	9.64	9.54

RANDOM FOREST MODEL

- A ticket price of \$95.87 is supported with a mean error of \$10.39, against the current \$81.00

Conclusion

BIG MOUNTAIN PRICES COMPARED TO MARKET:



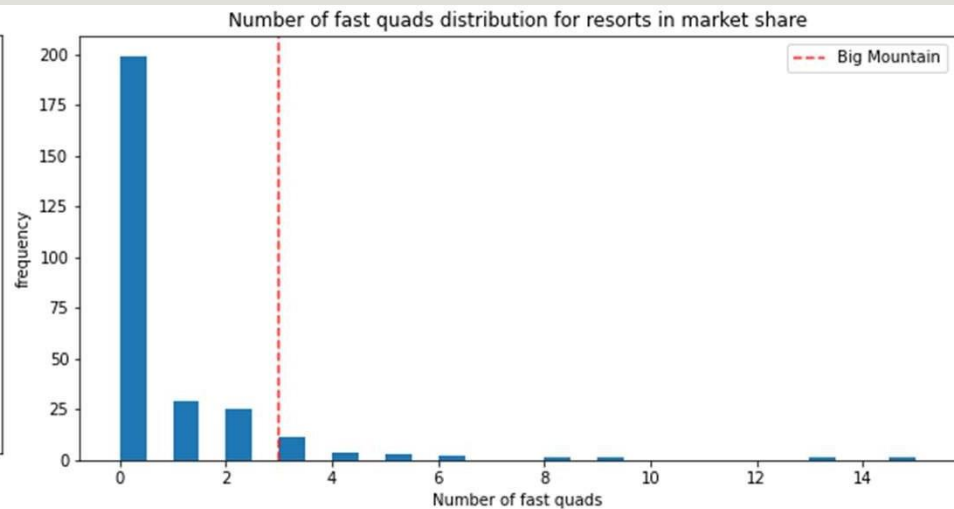
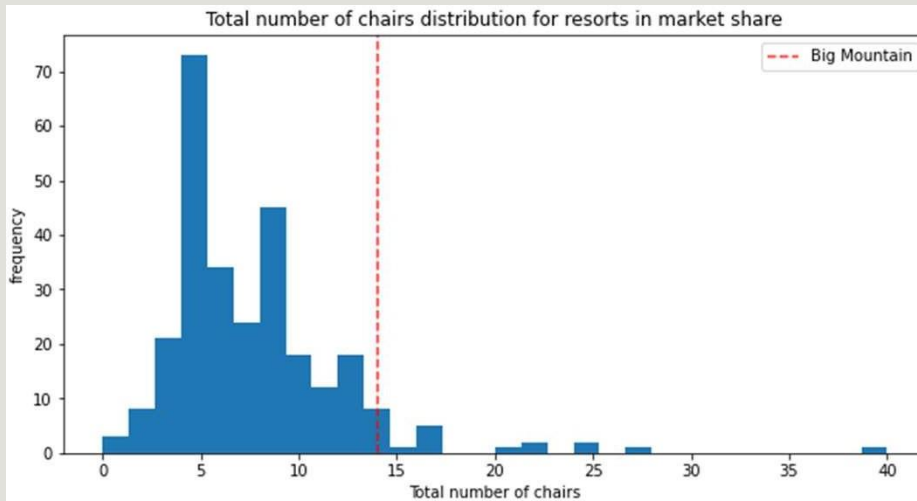
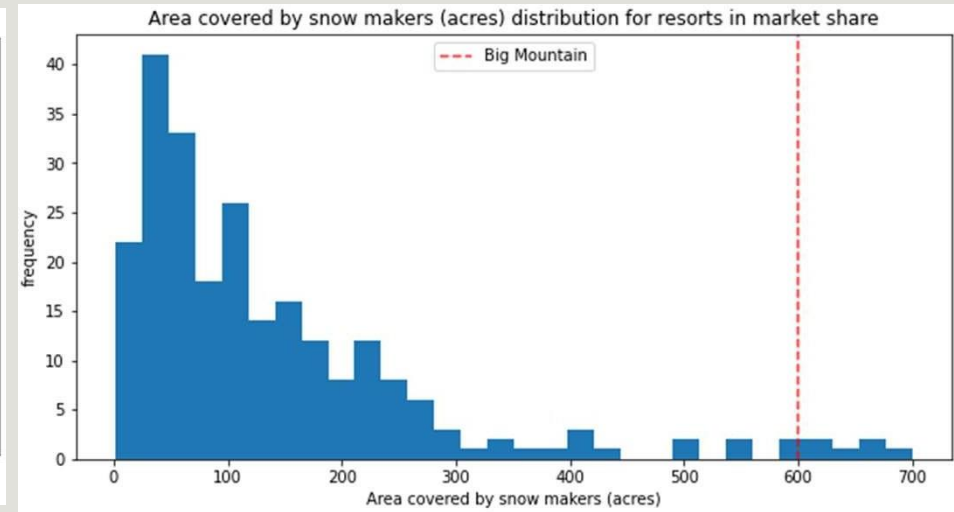
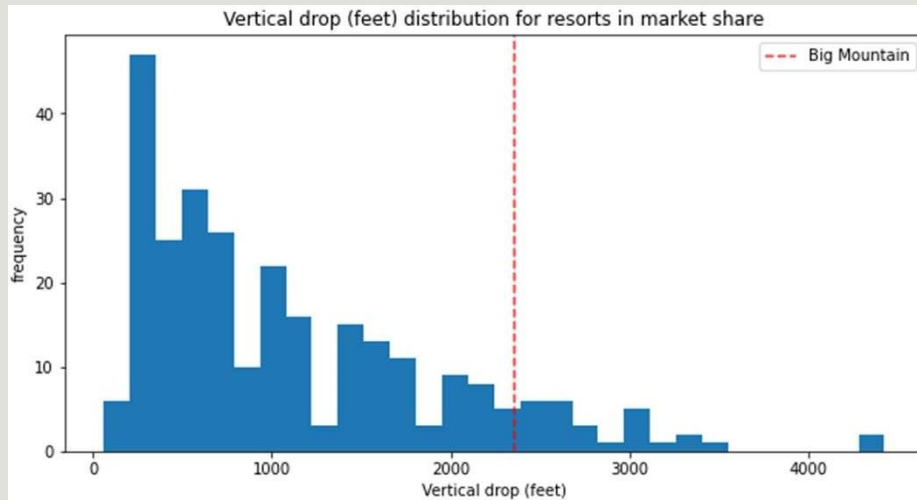
Conclusion

FEATURES THAT ARE IMPORTANT:

- vertical_drop
- Snow Making_ac
- total_chairs
- fastQuads
- Runs
- LongestRun_mi
- trams
- SkiableTerrain_ac

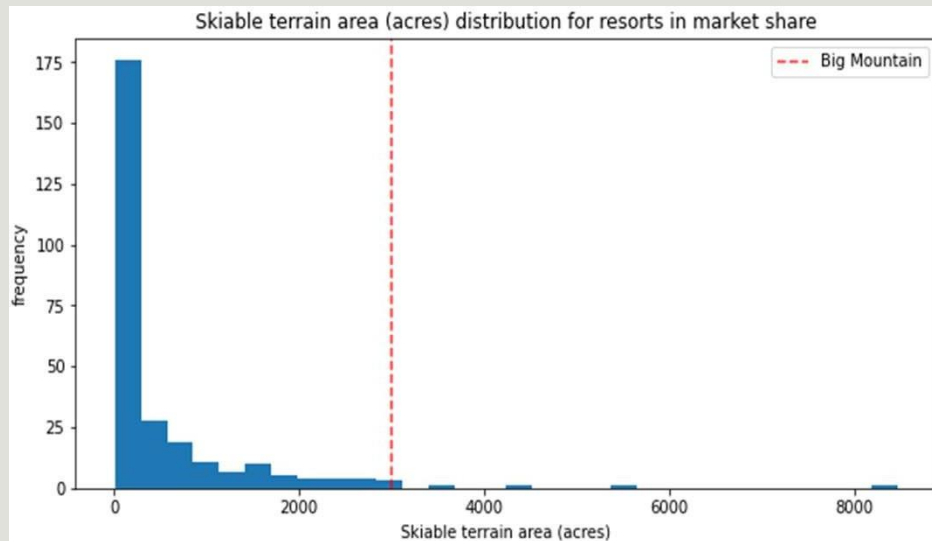
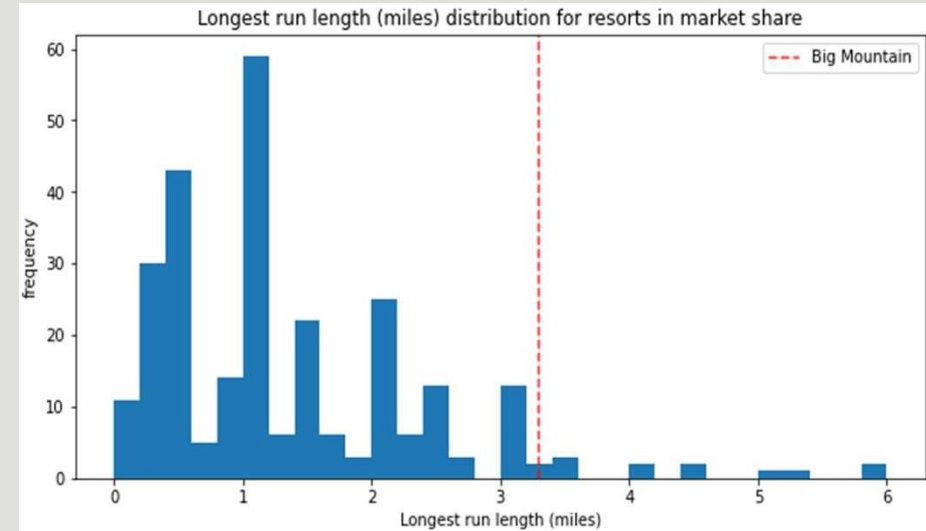
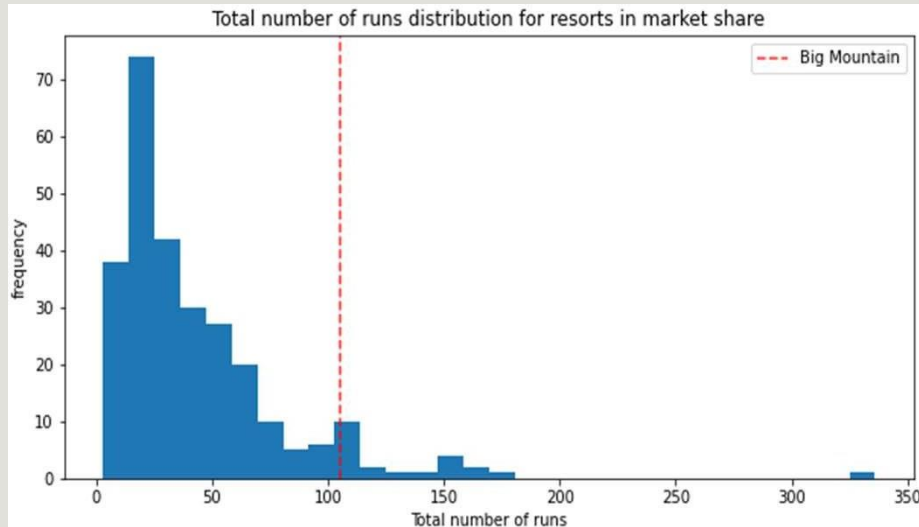
Conclusion

HOW BIG MOUNTAIN FAIRS ON IMPORTANT FEATURES:



Conclusion

HOW BIG MOUNTAIN FAIRS ON IMPORTANT FEATURES:



THANK YOU