



# Pricing Strategy Big Mountain Resort

Springboard Guided Capstone  
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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.**

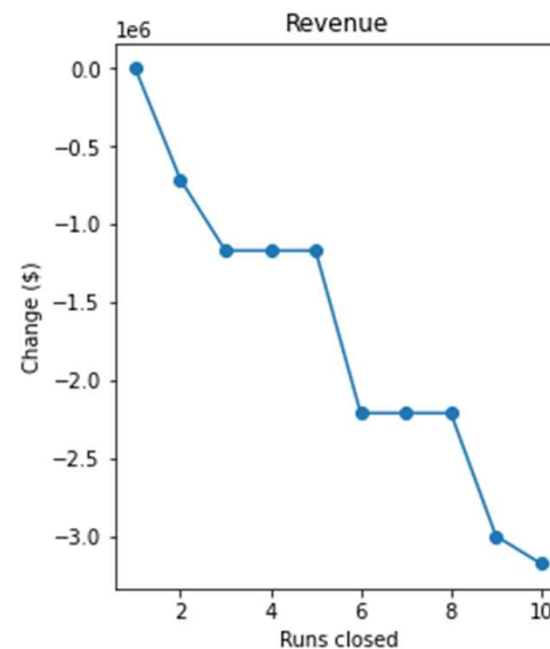
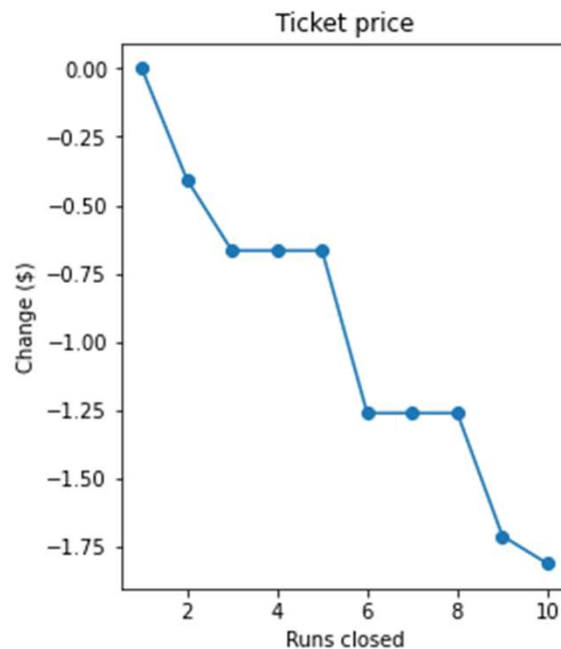
# Recommendation and key findings

- **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**



# Recommendation and key findings

- 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

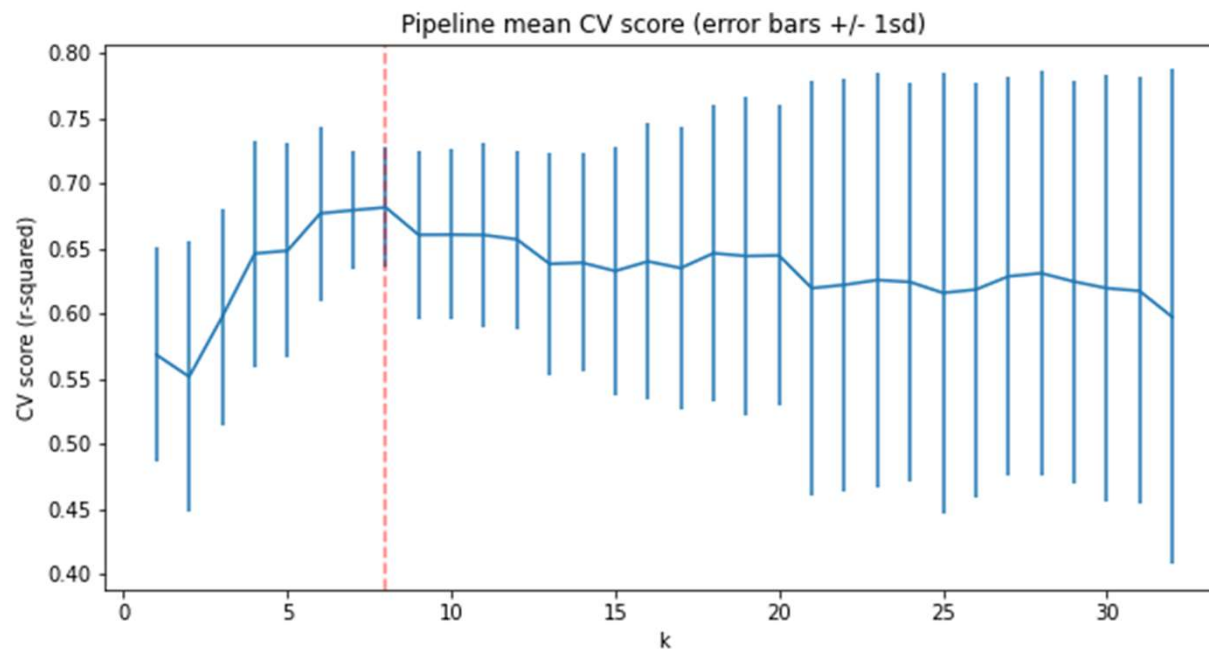
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## 1. MEAN OF PRICES MODEL

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

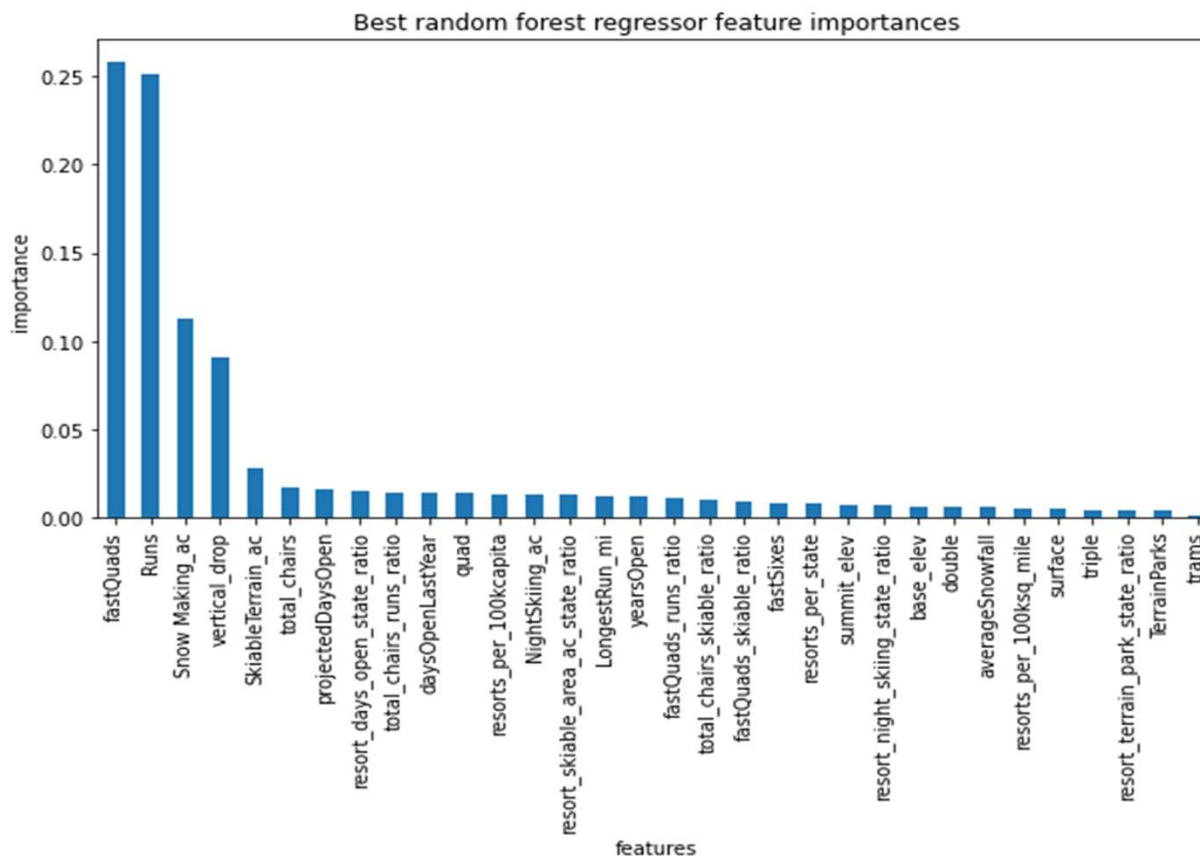
**Mean Error of :**  
**\$10.50 on train data**  
**\$11.79 on test data**

# Modeling results and analysis

## 3. RANDOM FOREST MODEL

Best model was with 69 trees

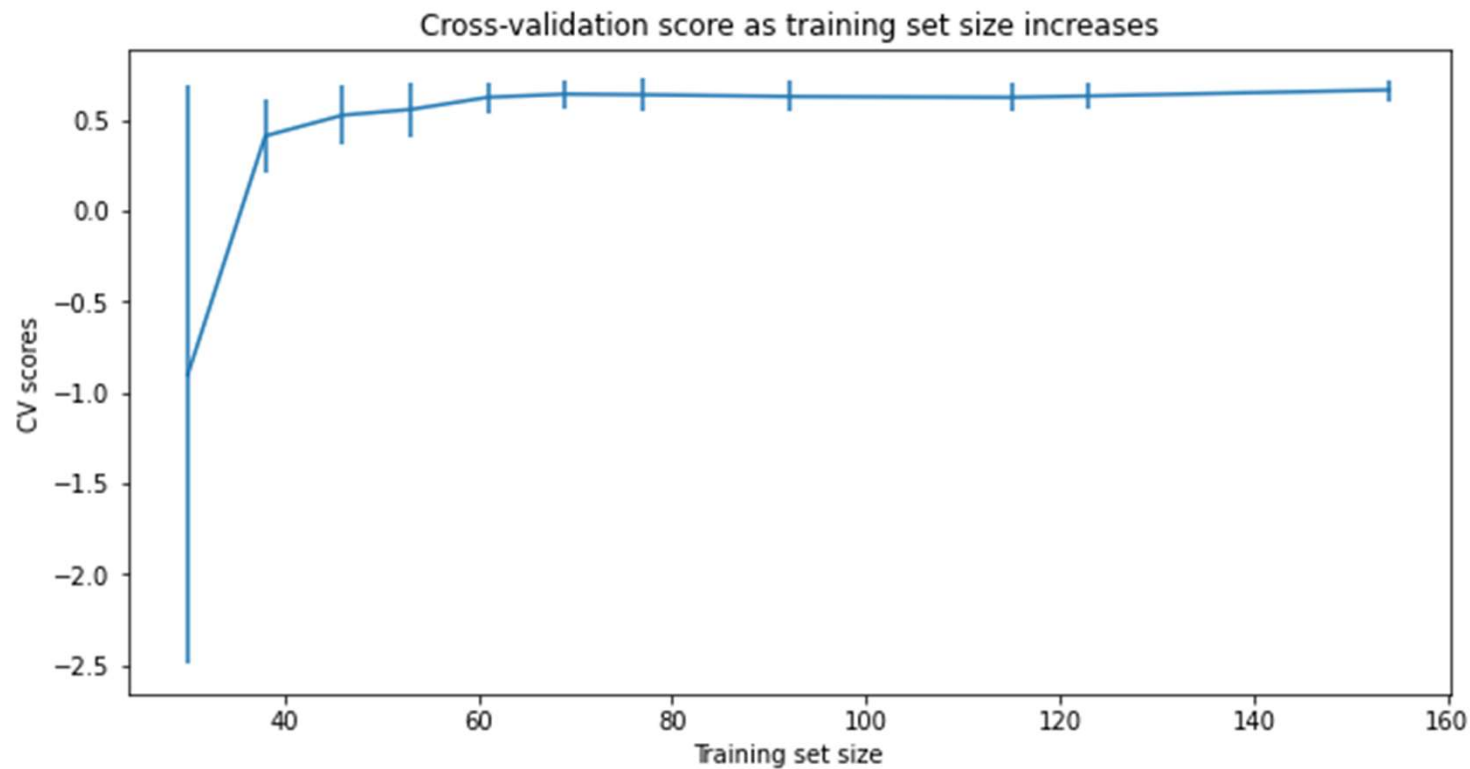
### Feature importance



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

# Modeling results and analysis

## DATA QUANTITY ASSESSMENT



**More than adequate data quantity**



# Summary

## MODEL RESULTS

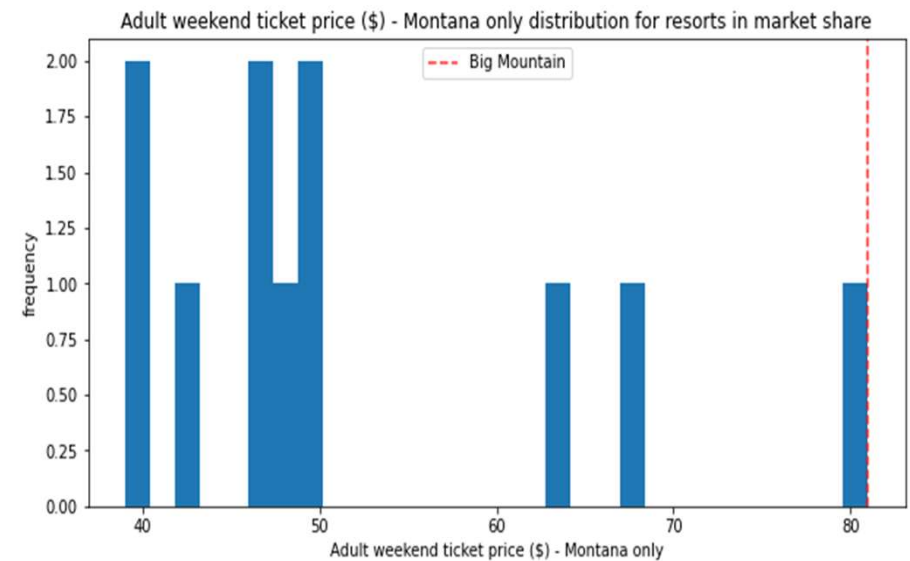
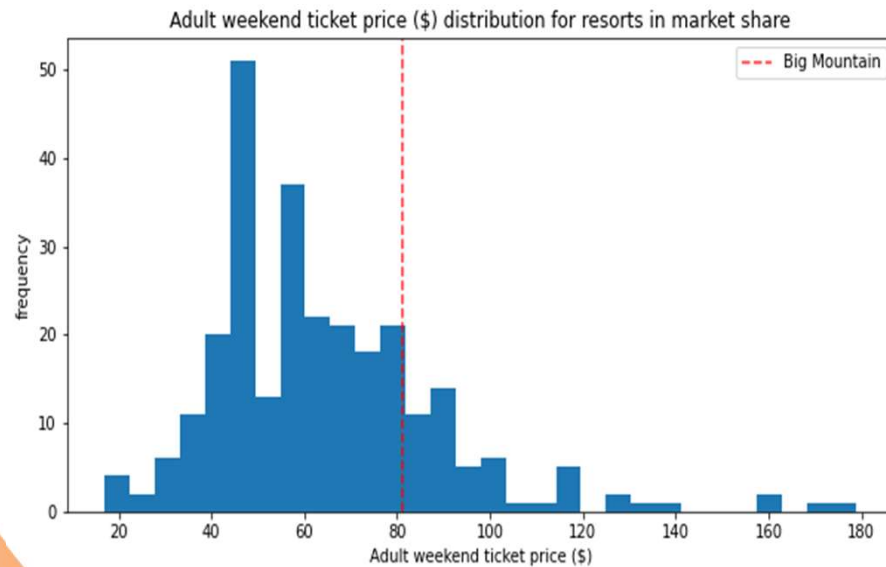
	Error (train)	Error (test)
• Mean of prices:	17.92	19.13
• Linear Regression:	10.50	11.79
• Random Forest:	9.64	9.54

## 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:



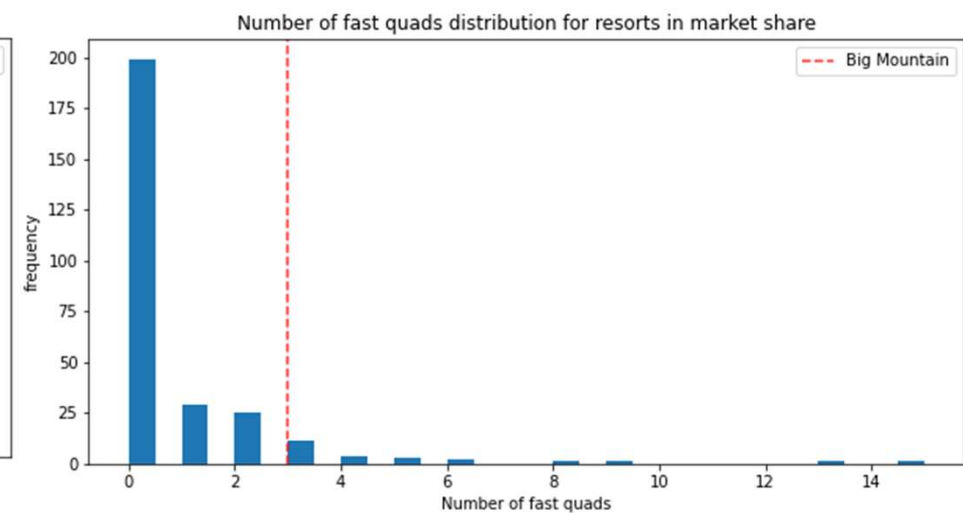
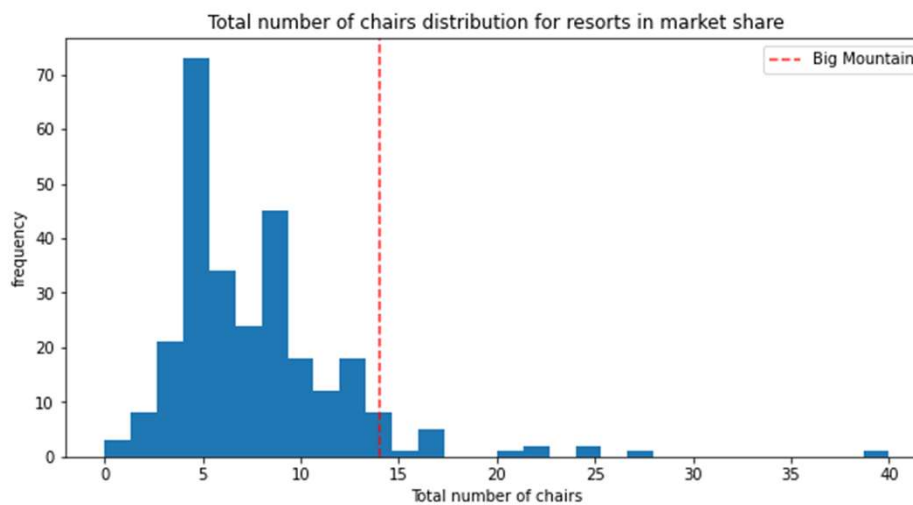
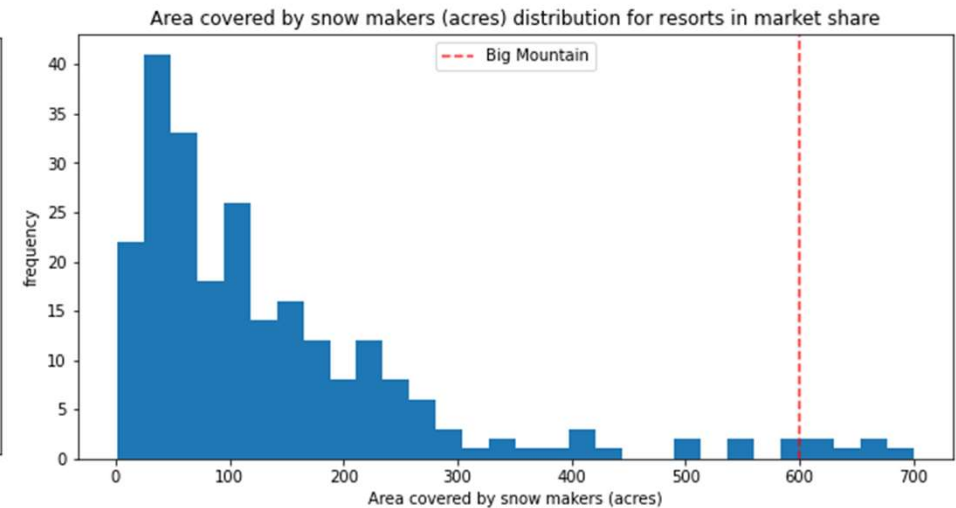
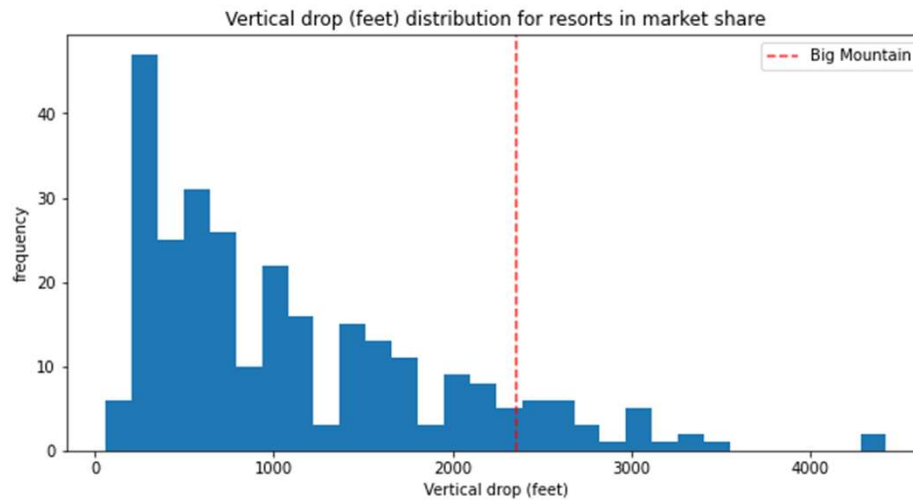
# Conclusion

## FEATURES THAT ARE IMPORTANT:

- vertical\_drop
- Snow Making\_ac
- total\_chairs
- fastQuads
- Runs
- LongestRun\_mi
- trams
- SkiableTerrain\_ac

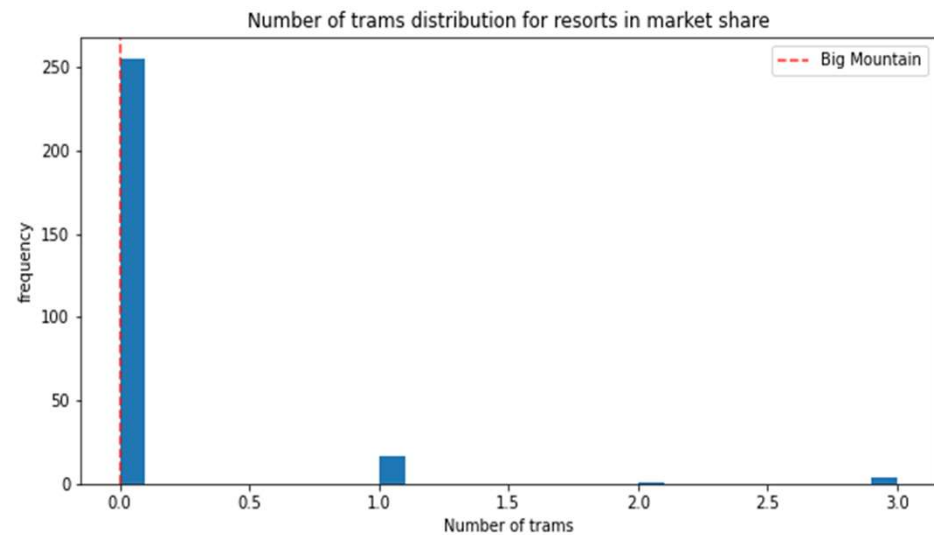
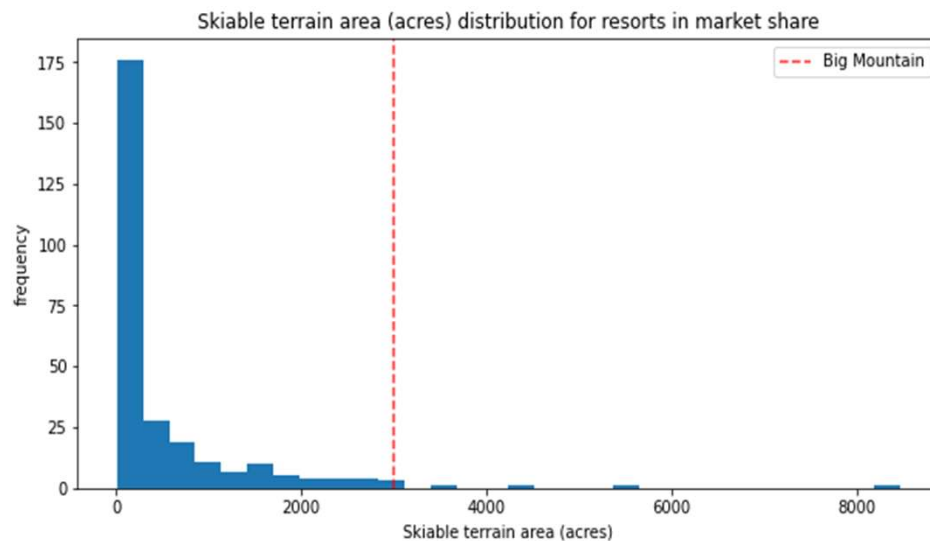
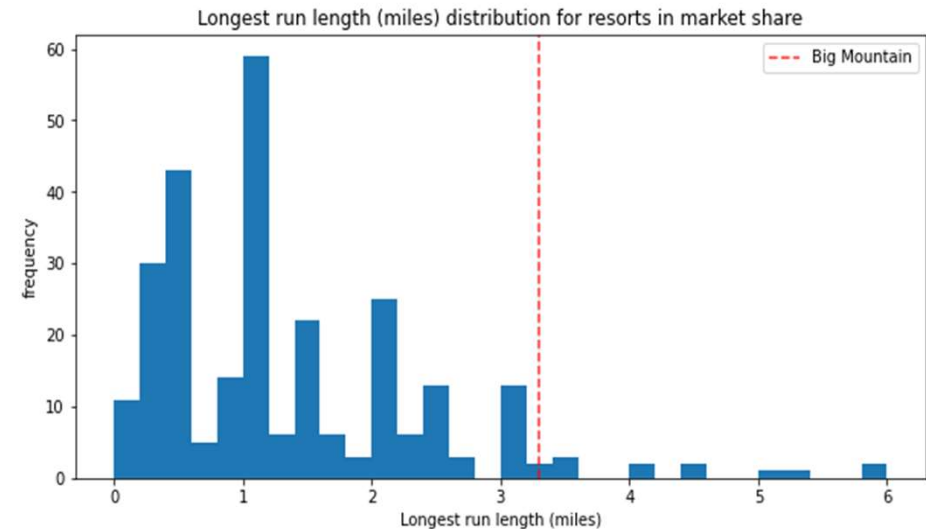
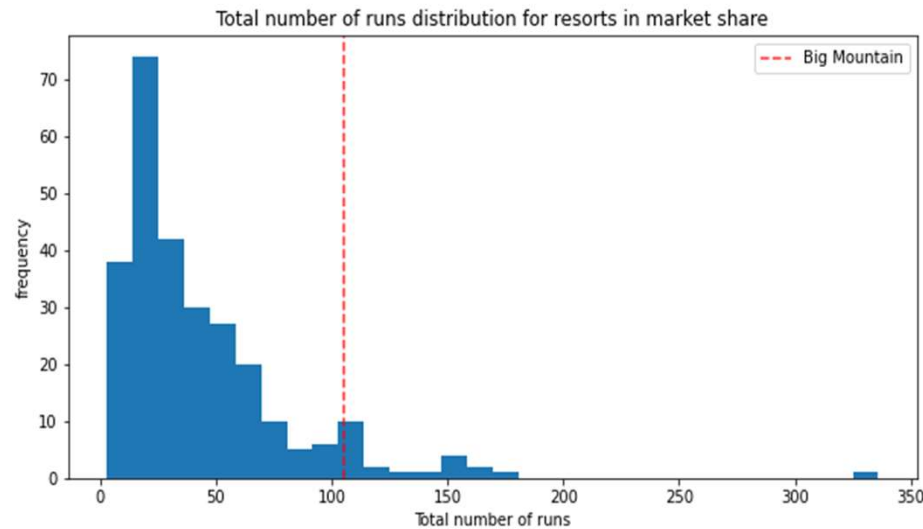
# Conclusion

## HOW BIG MOUNTAIN FAIRS ON IMPORTANT FEATURES:



# Conclusion

## HOW BIG MOUNTAIN FAIRS ON IMPORTANT FEATURES:



# THANK YOU



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Data Science Career Track

Springboard India

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