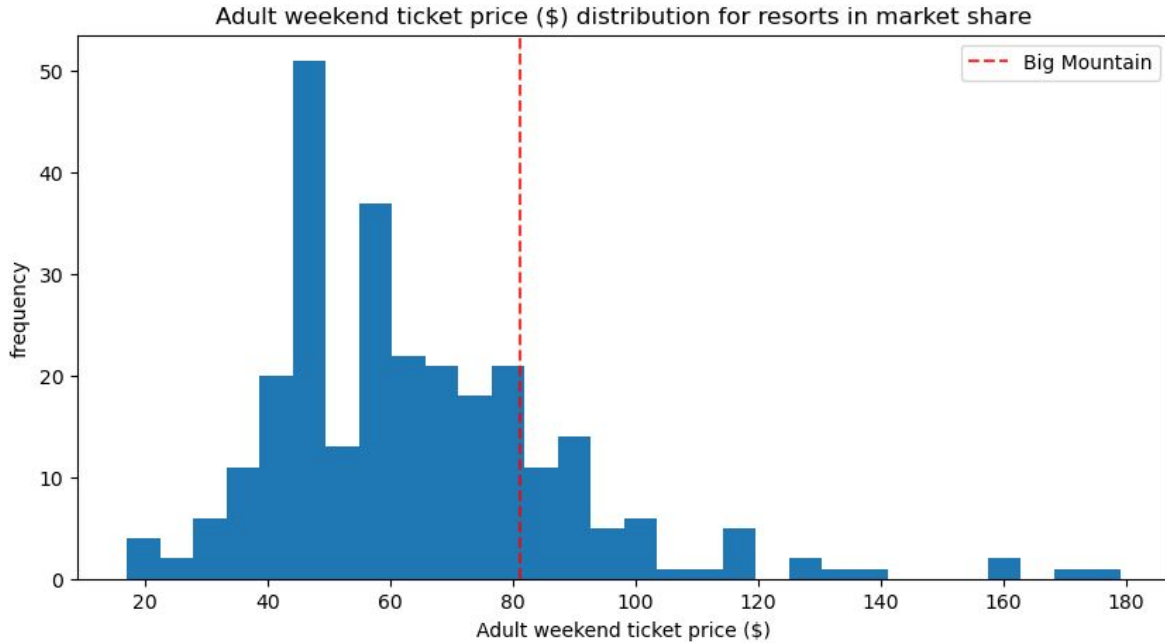


# Big Mountain Resort

**A data science approach  
to setting ticket prices**

# Where we are now

- \$81 per adult lift ticket
- ~\$141,750,000 revenue
- New chairlift:  
\$1,540,000 in  
operating costs



# How can we improve profitability?

- Data modeling suggests an increase of \$5 in ticket price
- Consider closing up to 10 of the least-used runs at the resort
- Consider adding a run and increasing resort's vertical drop by 150 ft.

# Data analysis and modeling

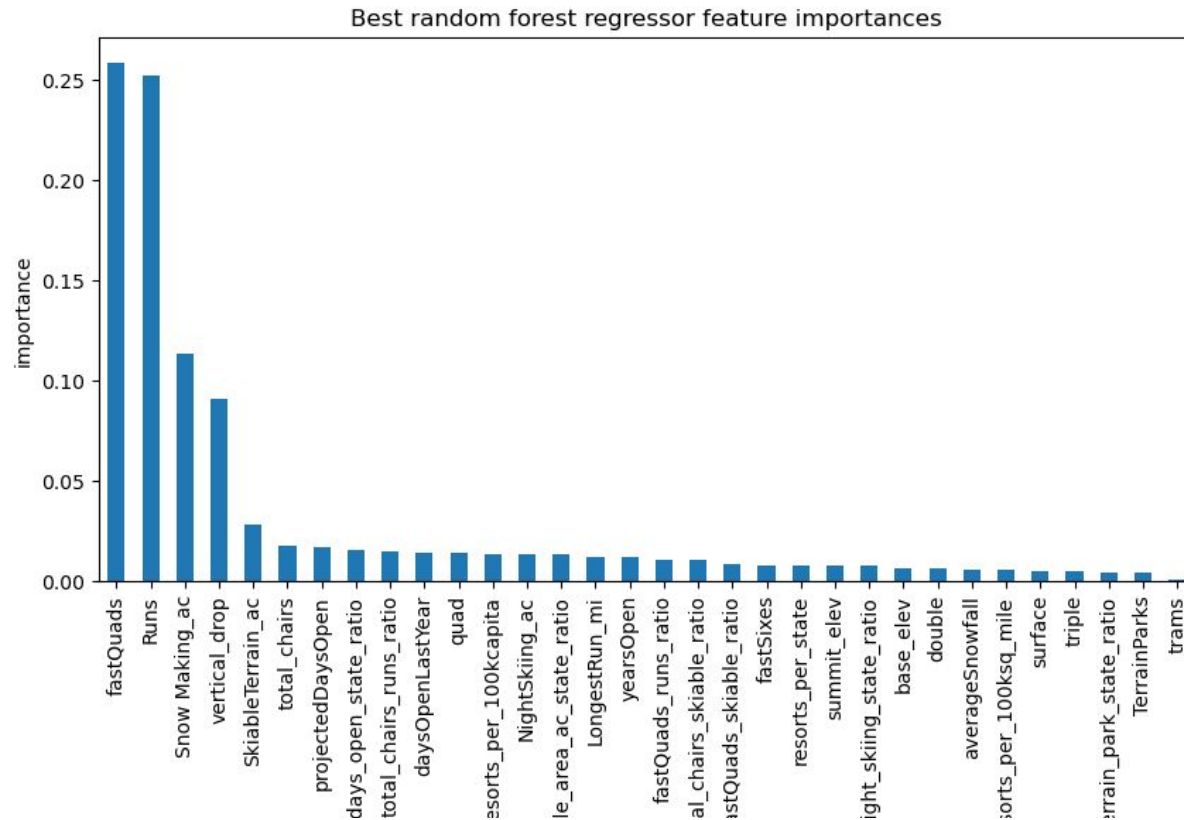
- Data on 330 resorts
- After cleaning,  
25 features from  
277 resorts

Name	Alyeska Resort	Eaglecrest Ski Area	Hilltop Ski Area	Arizona Snowbowl	Sunrise Park Resort
Region	Alaska	Alaska	Alaska	Arizona	Arizona
state	Alaska	Alaska	Alaska	Arizona	Arizona
summit_elev	3939	2600	2090	11500	11100
vertical_drop	2500	1540	294	2300	1800
base_elev	250	1200	1796	9200	9200
trams	1	0	0	0	0
fastSixes	0	0	0	1	0
fastQuads	2	0	0	0	1
quad	2	0	0	2	2
triple	0	0	1	2	3
double	0	4	0	1	1
surface	2	0	2	2	0
total_chairs	7	4	3	8	7
Runs	76.0	36.0	13.0	55.0	65.0
TerrainParks	2.0	1.0	1.0	4.0	2.0
LongestRun_mi	1.0	2.0	1.0	2.0	1.2

# Choosing a model

	Linear regression	Random forest
<b>R<sup>2</sup></b>	0.633	0.710
<b>Mean absolute error</b>	\$11.79	\$9.54

# Random forest predictors



# Random forest results

- Modeled price for Big Mountain Resort adult weekend ticket price: **\$95.87**.
- Team suggested adult weekend ticket price: \$86.
- \$8,750,000 in additional predicted revenue.

# Cost-saving / revenue-generating tactics

- Data modeling suggests looking further into two tactics:
  - Closing up to 10 of the least-used runs at the resort
  - Adding one run, 150 ft. of vertical drop, and one chairlift for access



# Summary

- Data modeling suggests there is room for an adult weekend ticket price increase.
- We suggest raising the price from \$81 to \$86.
- Further exploration into cost-saving and revenue-generating measures is warranted.