New Pricing Model

What is the right amount and why?

Problem Statement

Can Big Mountain Resort use the data from 330 US ski resorts to create a more informed pricing strategy for tickets and to guide future changes to reduce costs and support a higher ticket price for next season?

Problem Identification

- Our current pricing strategy is to charge a premium over the average price.
- We might be charging less than we could be given our current facilities.
- We have no idea what facilities visitors find the most valuable.
- We don't know how best to update our facilities to support a higher ticket price.

- We will create a pricing model based on the data from resorts all over the United States.
- We will have a better idea of what ticket price we currently have support for.
- Future improvements will be guided by important features inferred from the model.

Suggestion and Key Findings

- We can confidently charge more given our current position. A Price of $95.87/ticket is what the model expects and this more than covers the increased operating costs of our new chair lift.
- Important features were found to be fast quads, number of runs, area covered by snow making machines, and vertical drop.

Best random forest regressor feature importances
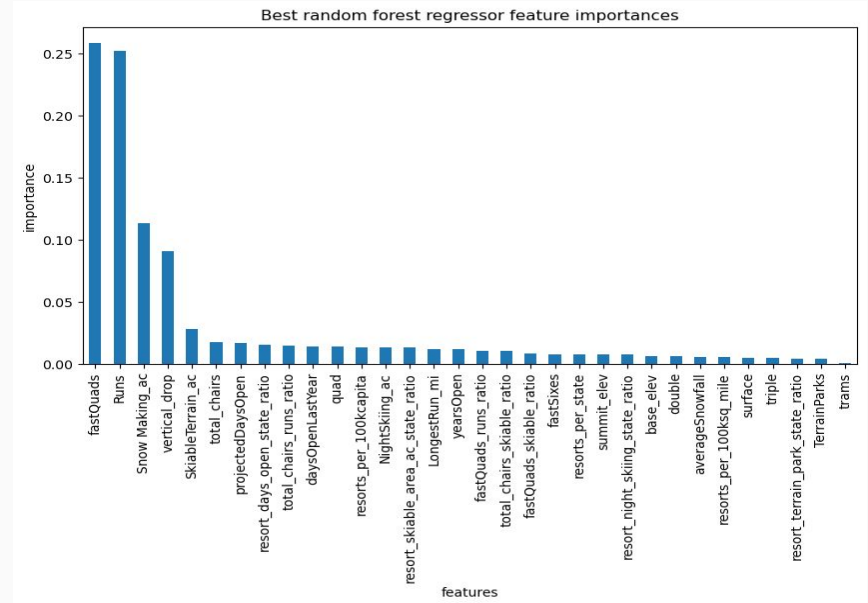
Modeling Results

- Four potential scenarios were offered.
  - Close between 1 and 10 runs.
  - Increase vertical drop by adding a new run that ends at a point 150 ft lower. No new snowmaking.
  - Same as previous but with snowmaking.
  - Increase longest run by 0.2 miles requiring 4 more acres of snowmaking.

- Of these scenarios, the second option provides support for an increase in ticket price of almost two dollars.
- The first option while supporting a slightly lower ticket price would significantly lower operating costs.

Conclusion

- We started with a pricing strategy that left us flying blind with regard to what's important at our resort and how best to serve our customers.
- We used the data available to create a new strategy that incorporates knowledge of our facilities and our position in the market.
- We have a plan moving forward that is guided by our new model.
- We can improve our model by obtaining more data.