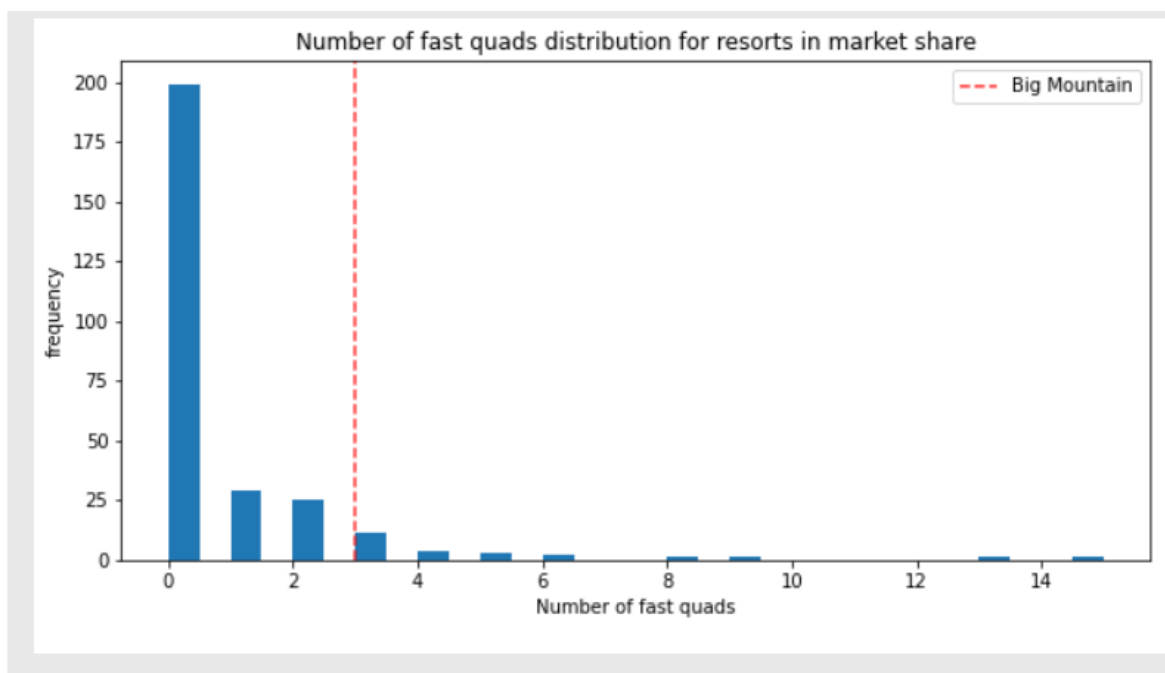


Data Driven Pricing Strategy for Big Mountain Resort

Big Mountain Resort (BMR) uses a pricing strategy where they “charge a premium above the average price of resorts in its market segment.” That strategy has led them to charge \$81.00 for an adult weekend ticket. This approach does not let BMR set a price based on its competitive advantage.

BMR is an outlier, it has better and more of the facilities that command a premium price. This is already taken into account because BMR already charges the most for a ticket among resorts in Montana. The Random Forest model used to predict what BMR would charge for a ticket, identified the most important features for predicting adult weekend ticket prices. By a wide margin, those features are **fast quads**, the number of **runs**, the number of **snow making acres**, and the height of the **vertical drop**. BMR is at the top of the distribution of these features compared to its competitors. This allows it to charge above the typical ticket price in Montana and there is evidence that it can safely further increase the ticket price.



BMR's number of fast quads compared to other ski resorts. The number of fast quads was the most important feature for predicting adult weekend ticket price.

The Random Forest model was trained on data from 276 ski resorts. It was accurate at predicting ticket price within a margin of error of \$10.39. This is better than predicting

the average price which had a margin of error of \$19.13. The model predicted that BMR would charge \$94.22 for an adult weekend ticket. Considering the margin of error, if BMR had set its ticket price based on its facilities it would charge between \$83.83 and \$104.60 per ticket.

Based on the 350,000 expected visitors and the average of 5 ticket sales per visitors and the current price of \$81.00, gross revenue for this season can be forecast at \$140 million. If BMR set its ticket price according to how the model predicts it would based on its facilities it would earn gross revenue between \$147 and \$183 million. The current pricing strategy costs BMR between \$7 and \$43 million in gross revenue per season. Increasing the ticket price to what the model predicts would let it earn gross revenue of \$165 million, a \$25 million increase.

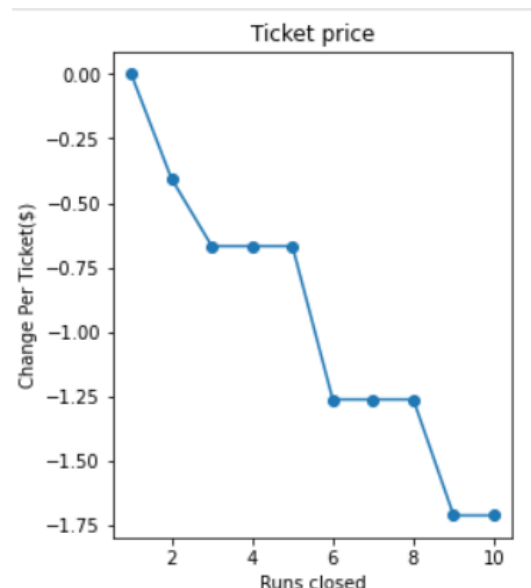
Options Shortlist

Option 1: Permanently closing up to 10 of the least closed runs.

The model predicts that if it closed 10 runs, the price BMR would charge would decrease by \$1.75. It would be ideal to close either 1, 5, 8, 10 runs, based on the plateaus.

Option 2: Add a run, increase the vertical drop by 150 feet, and add a chair lift.

The model predicts this would increase the ticket price by \$1.99 and therefore \$3.5 million in gross revenue per season.



Option 3: Same as Option 2, but also adding 2 acres of snow making capacity.

The model did not predict adding 2 acres of snow making capacity would influence ticket price.

Option 4: Increase longest run by .2 miles and add 4 acres of snow making capacity.

The model did not predict this option would influence ticket price.