

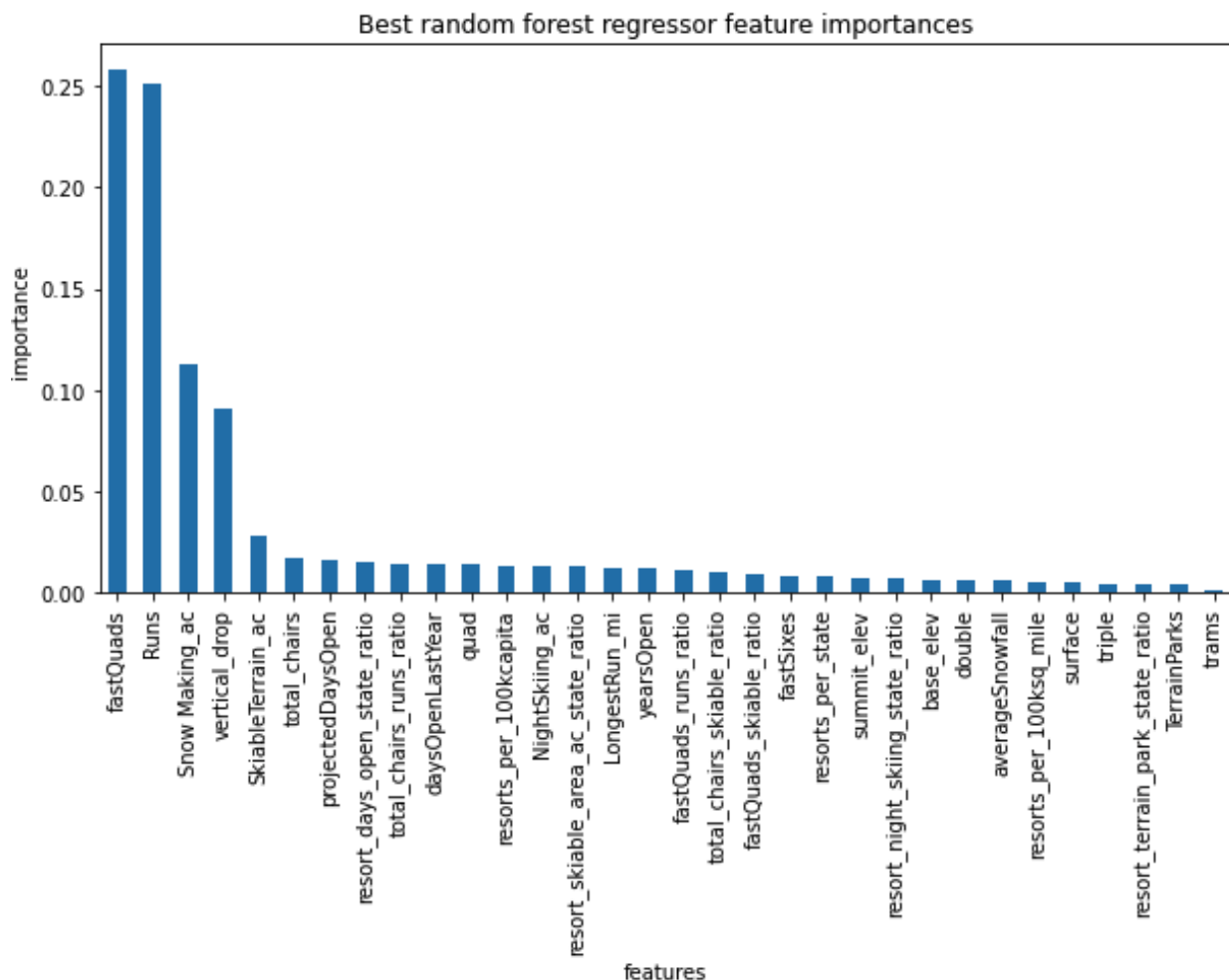
Big Mountain Data Science Project Summary

Big Mountain Resort currently charges \$81.00 per ticket. Is this the optimal ticket price based on the marketable assets of the resort?

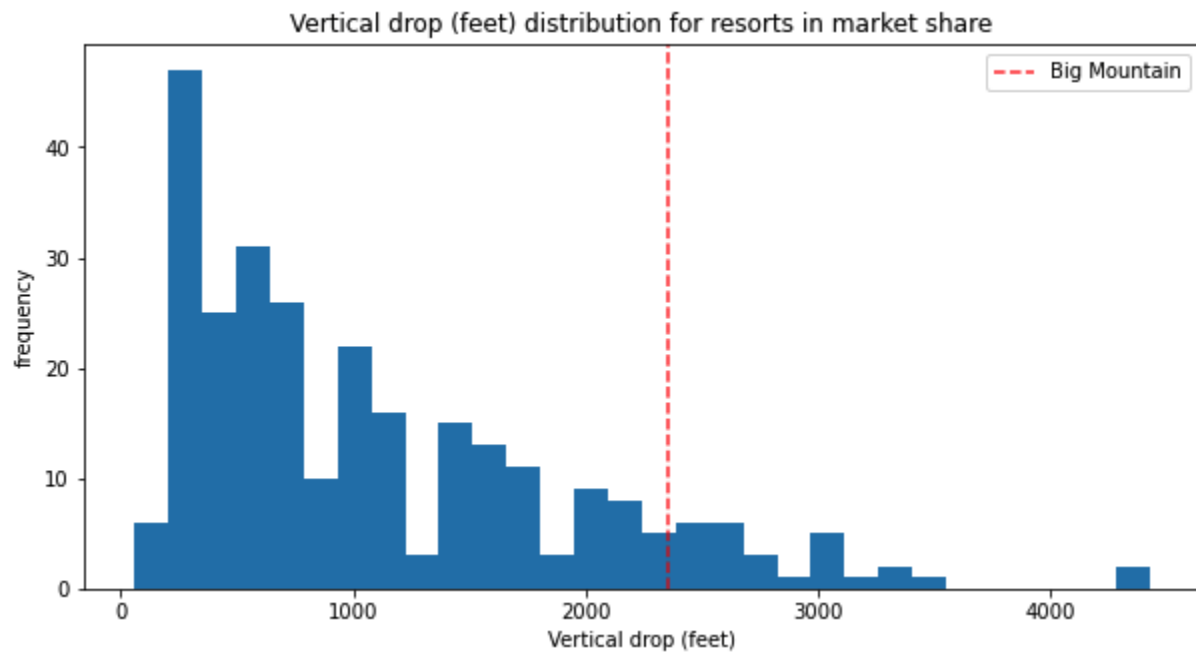
This project developed a ticket price model based on a variety of data which included 300 ski resorts across North America.

Compared to other resorts across North America, Big Mountain Resort is not the highest priced, however in Montana it is the most expensive resort. Therefore some justification might be needed to raise ticket prices.

A random forest regression model found the top 4 features to be # of fast Quad chairs, # of runs, snow making area, and vertical drop.



Data analysis found that Big Mountain Resort is already amongst the highest in snowmaking area and number of fast Quad chairs. However, vertical drop is one feature that the resort could improve upon for minimal additional cost.



The overall recommendation is to increase ticket price by \$1.99 to \$82.99 per ticket. This would require the addition of a run and associated chair lift that increases the vertical drop of the resort by 150 ft. The already purchased new chair lift for this season will accomplish the goal of increasing vertical drop.

The modeled increase in revenue is almost \$3.5 million, based on the assumption that each visitor stays for 5 days and purchases a ski ticket for each day. Taking into account the cost of the new chair lift of \$1.54 million, this leaves a potential profit of almost \$2 million for this season.