Big Mountain Resort
TIcket Pricing & Expanding the Resort

A Data Scientist's Perspective

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Business Questions

- How to compensate for the additional expense ($1.54 M) of adding a chair lift?
  - Is **cutting cuts** by reducing the number of facilities a viable option?
  - Is **raising ticket price** a viable option based on the facilities we offer?

Business Questions

- As business has stated, we have 4 choices
  a. Permanently closing down up to 10 of the least used runs. This doesn't impact any other resort statistics.
  b. Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage
  c. Same as number 2, but adding 2 acres of snow making cover
  d. Increase the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres

Recommendations

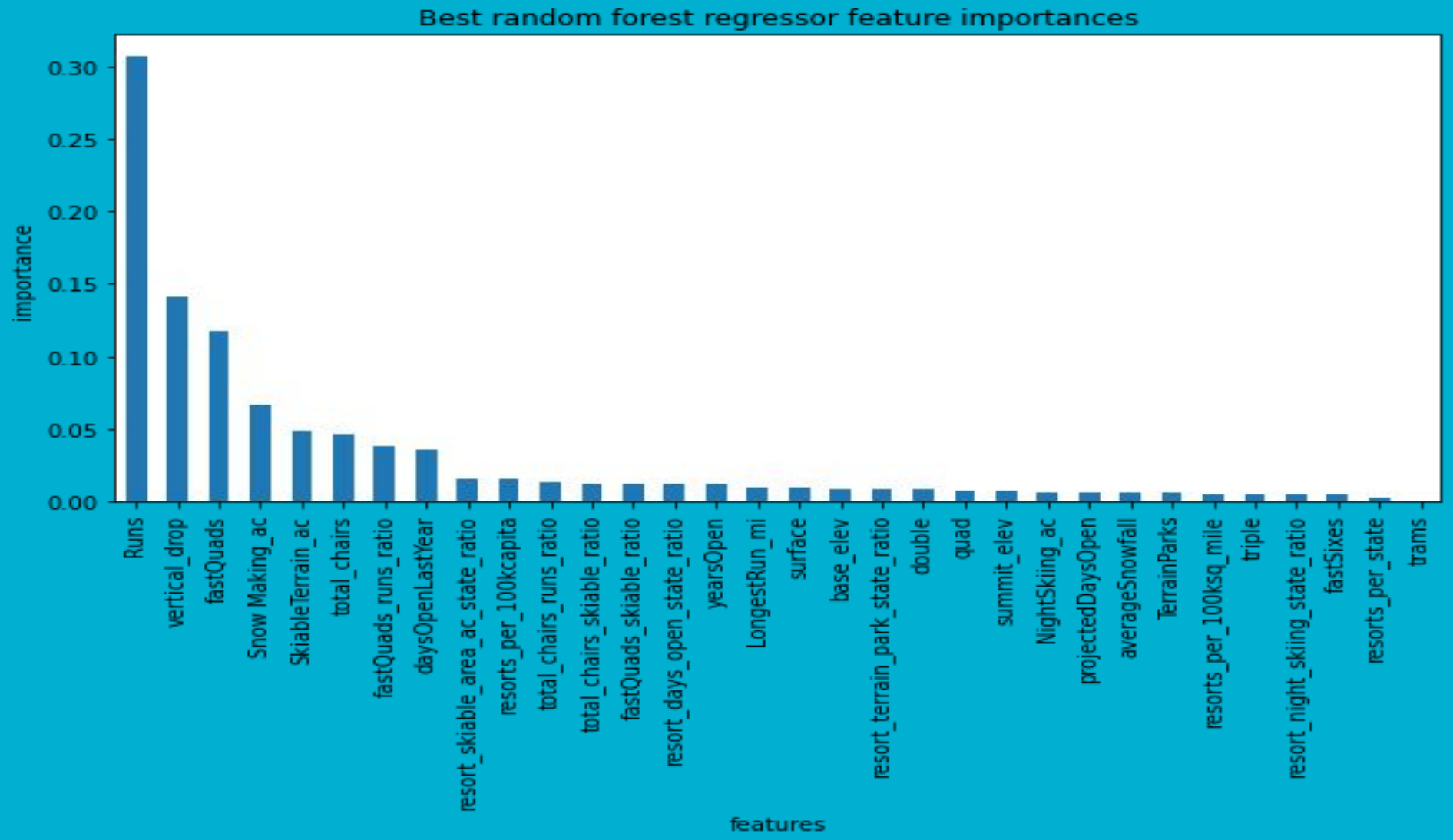
- We suggest capitalizing more on the facilities and moving forward with option 2
  - Increase the vertical drop by adding a run to a point 150 feet lower down
  - Installation of an additional chair lift
- Analysis of other options
  - Closing down the 10 least common runs
    - Leads to decreased support for ticket price
  - Adding the number of snow making acres or increase length of longest run
    - Leads to no predicted difference in ticket price

Modeling & Analysis

- Used a Random forest model to predict ticket prices and analyze which of the 32 features contribute most to ticket price

- Most important features which support an increased ticket price are:
  - Number of Runs
  - Vertical Drop
  - Number of Fast Quads
  - Number of Snow Making Acres
  - Skiable Terrain Acres
  - Total Chairs

Modeling & Analysis

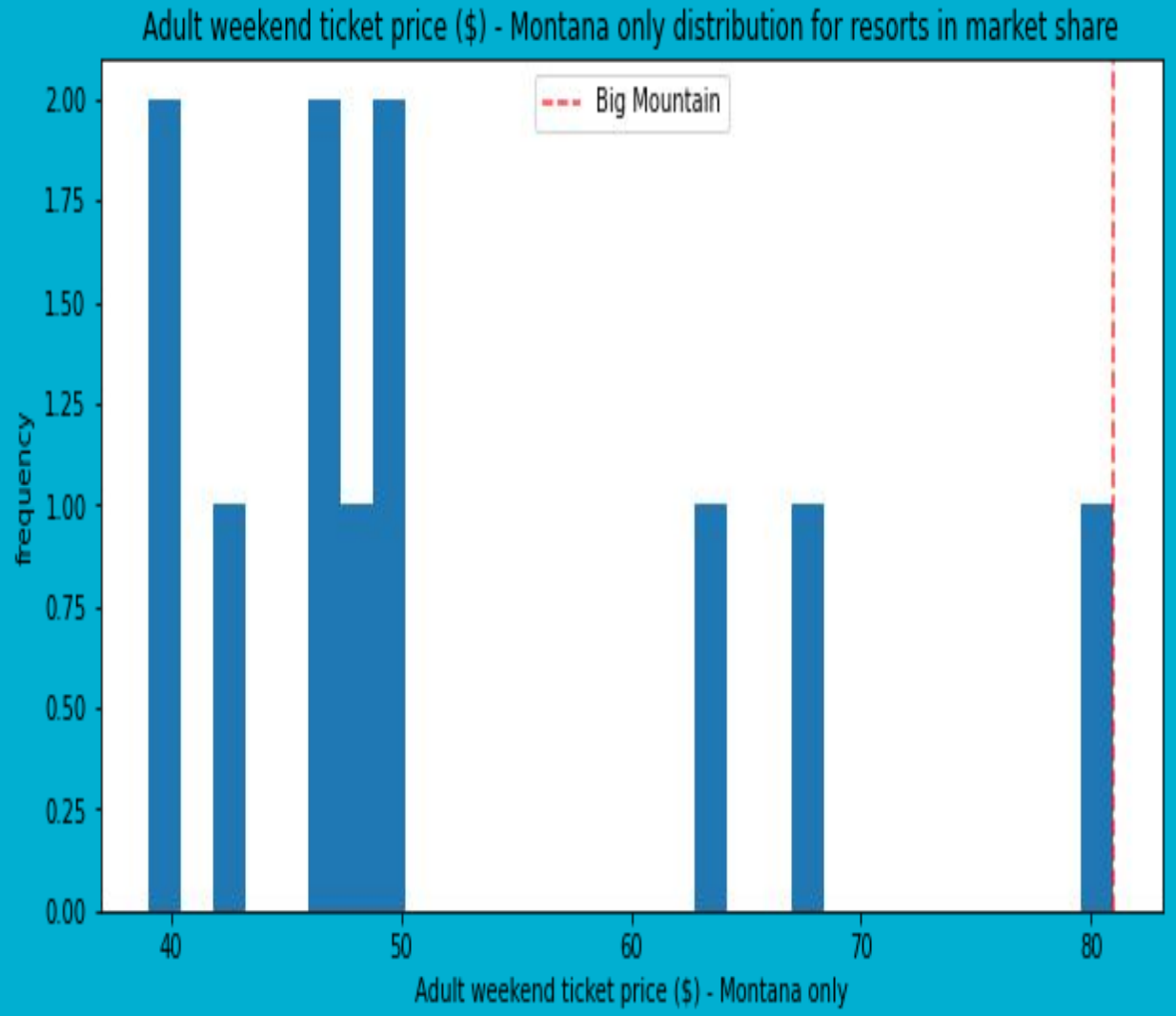


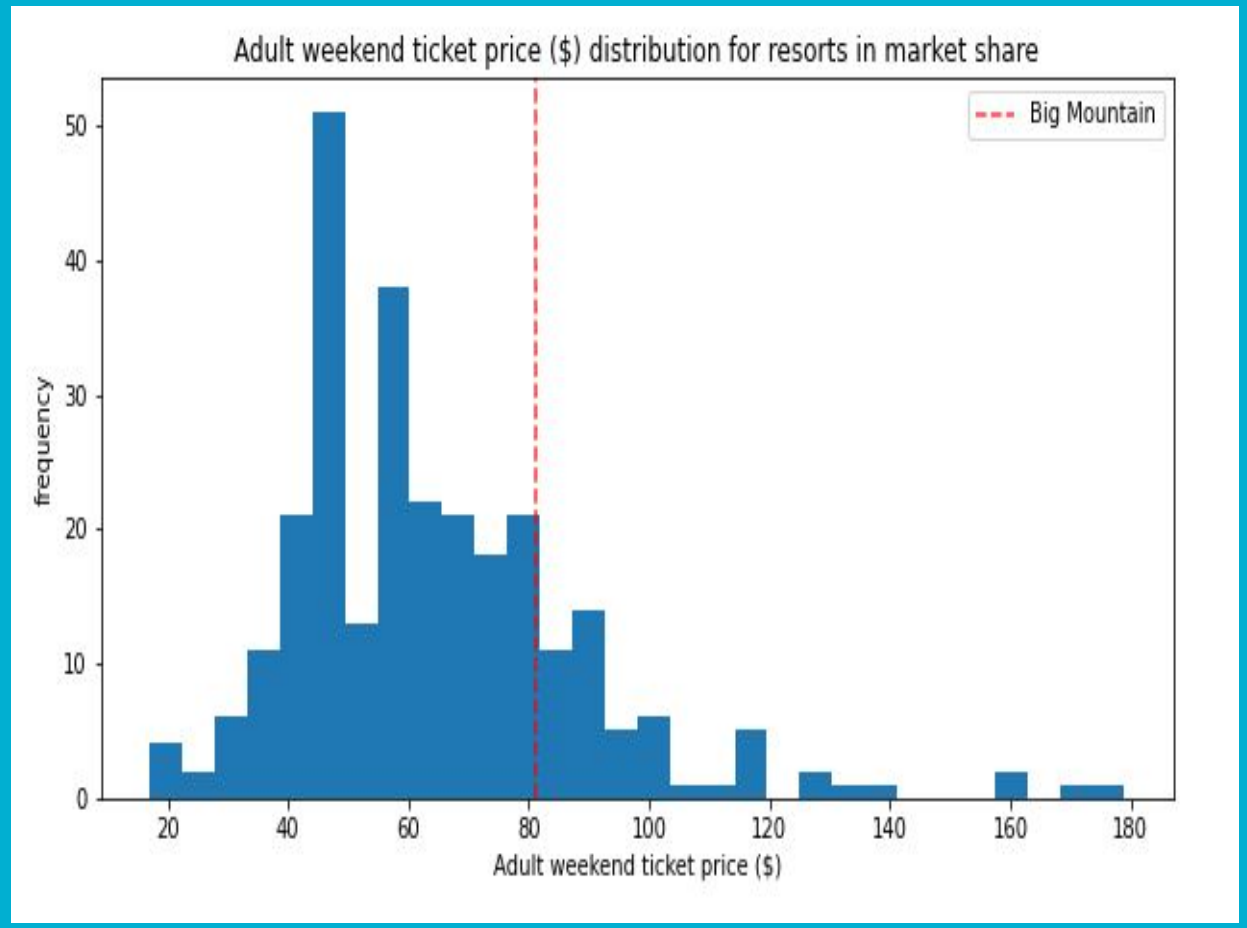
Modeling & Analysis

- Model recommends that we raise ticket prices
  - Model indicates that a resort with our facilities should have a pricing of $92
  - Even with the model's margin of error of $10, this suggests that our current price of $81 is too low

- If we raise prices by $1.31 per ticket, we expect to have additional revenue of $2.3 M per season

Modeling & Analysis





Summary

- Recommend Option 2: installing a new run with an increased vertical drop of 150 ft and adding an additional chair lift

- Raise ticket prices by $1.31 per ticket
  - Model suggests that our current price of $81 is too low for a resort with our facilities
  - Raising ticket prices is very reasonable when we consider other resorts in our market share, and will be enough to cover additional operational expenditures