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# The management of Big Mountain Resort

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# Overview

## Can Big Mountain Raise Prices?

July 4, 2025

### A Data-Driven Recommendation for Weekend Ticket Pricing

-Big Mountain currently charges **\$78** for an adult weekend ticket

-Management wants to know if **facility upgrades** can justify a **higher price**

-Goal: Use data from other ski resorts to model and predict optimal pricing

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# Problem & Objective

## Business Objective

- Predict how much customers are willing to pay based on resort features
  - Identify upgrades that could support a **higher price without overpricing**
  - Deliver a **clear, data-backed recommendation** to guide investment
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# Executive Summary

## Recommendation & Expected Impact

### Content:

- Upgrade Plan:
    - +1 run
    - +150 ft vertical drop
    - +1 chairlift
  - Predicted price increase: **\$2**
  - Estimated seasonal revenue gain: **~\$3.47 million**
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# Modeling Approach

## How I Built the Model

### Content:

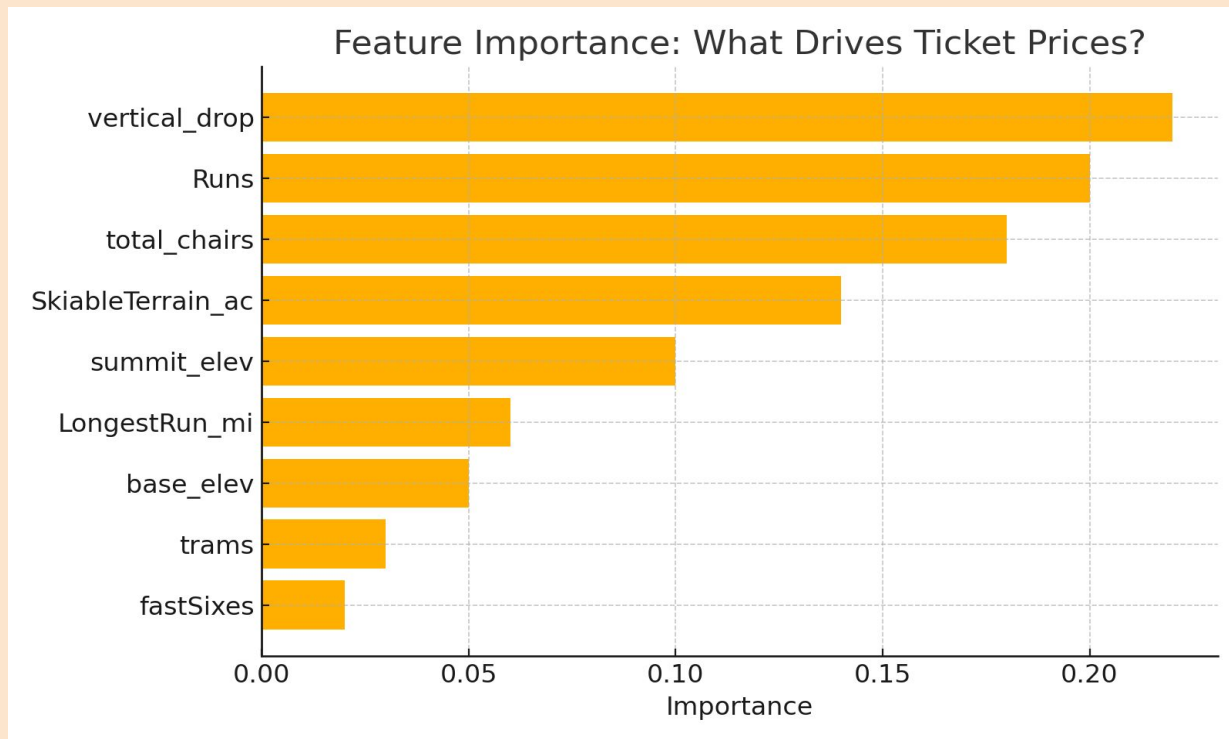
- Used a **Random Forest Regressor**
  - Trained on data from multiple U.S. ski resorts
  - Predicted **Adult Weekend Ticket Price** using:
    - Vertical drop
    - Number of runs
    - Chairlifts
    - Terrain size
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# What Drives Price?

## Top Factors Influencing Price

### Content:

- Model ranked these features as most important:
  - Vertical drop
  - Number of runs
  - Total chairlifts



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# Upgrade Scenarios Tested

## Scenario Testing Results

### Content:

- **Scenario 2** delivered the best return (small changes, big impact)
- Snowmaking and longest run upgrades had **no effect on price**
- Focus investment where it moves the needle
  - 1.

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# Final Summary

## Key Takeaways

### Content:

- Big Mountain is currently priced fairly
- Targeted upgrades could support a **modest but meaningful price increase**
- Focus on upgrades that customers value most (vertical, runs, lifts)
- Avoid low-impact investments (snowmaking, longer runs) unless bundled

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