

Modeling Ticket Price of Big Mountain Resort

Guided capstone project 1

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INTRODUCTION



- Located in Montana
- 350,000 visitors every year
- Excellent facilities



INTRODUCTION



- Provide views of Glacier National Park and Flathead National Forest

PROBLEM STATEMENT



Additional chair lift
installed recently



Better ticket pricing
model for the ski
resort



Additional operating
cost increased by
\$1.5 million



Identify facilities for
future investments

DATA WRANGLING

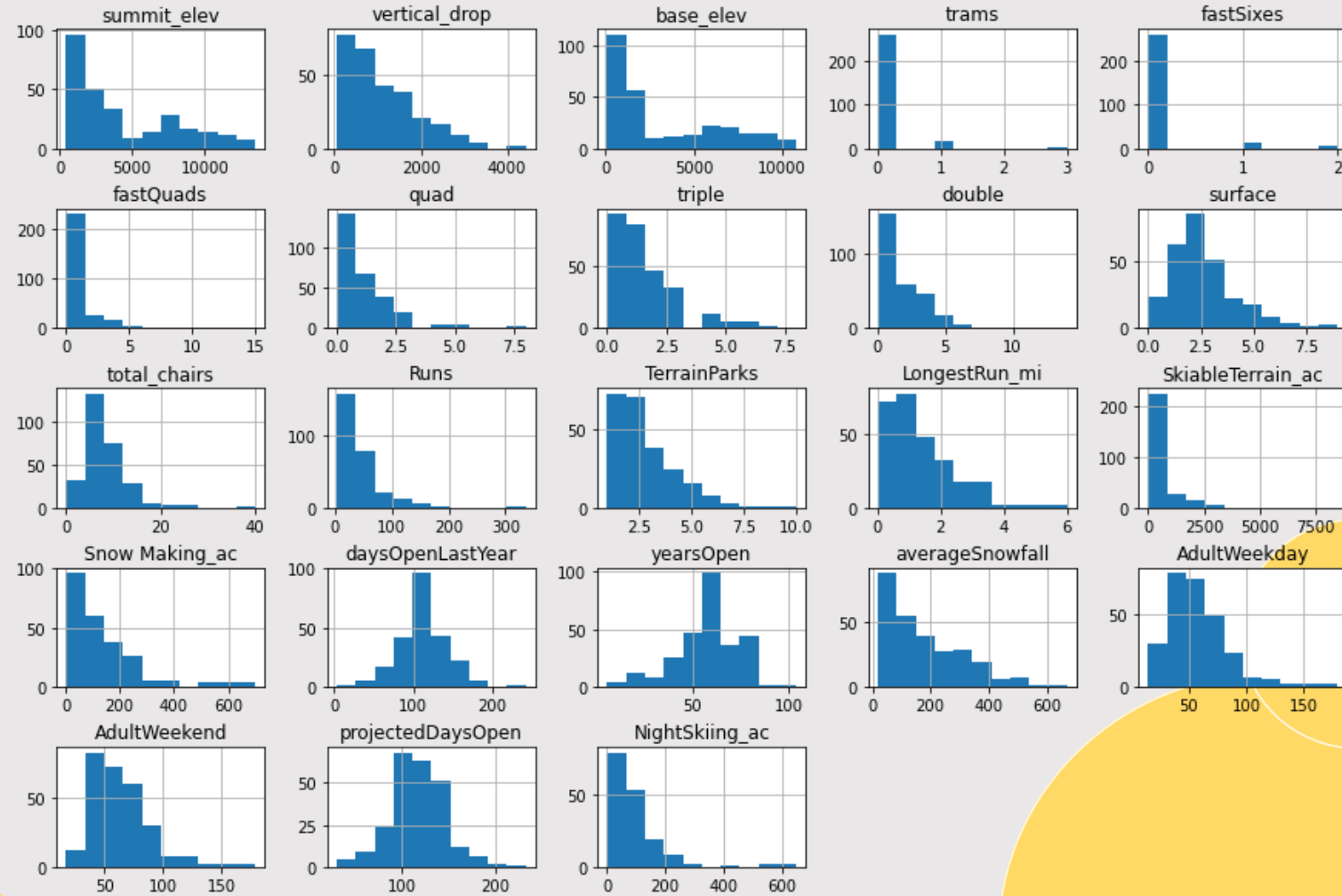
Data

- Format - CSV
- Rows - Resort
- Columns - Variables

Resorts: 330

Regions: 38

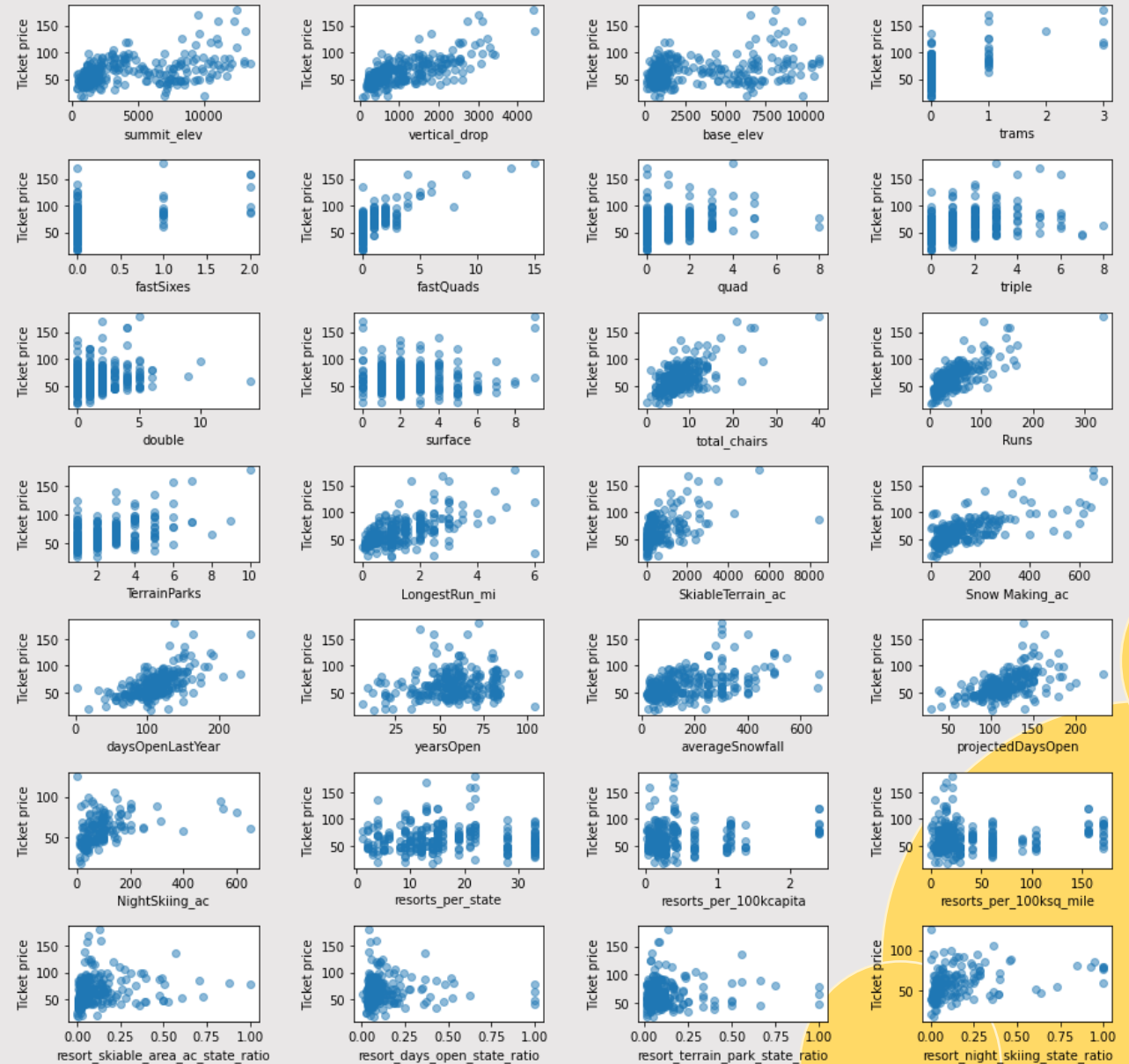
Primary target variable:
ticket price



EXPLORATORY DATA ANALYSIS

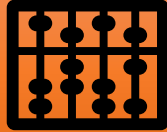
Adult ticket price is positively correlated to:

- Snow Making_ac
- resort_night_skiing_state_ratio
- fastQuads,
- Runs
- total_chair
- Vertical_drop



MODELLING

Algorithms



Linear regression

63% variance

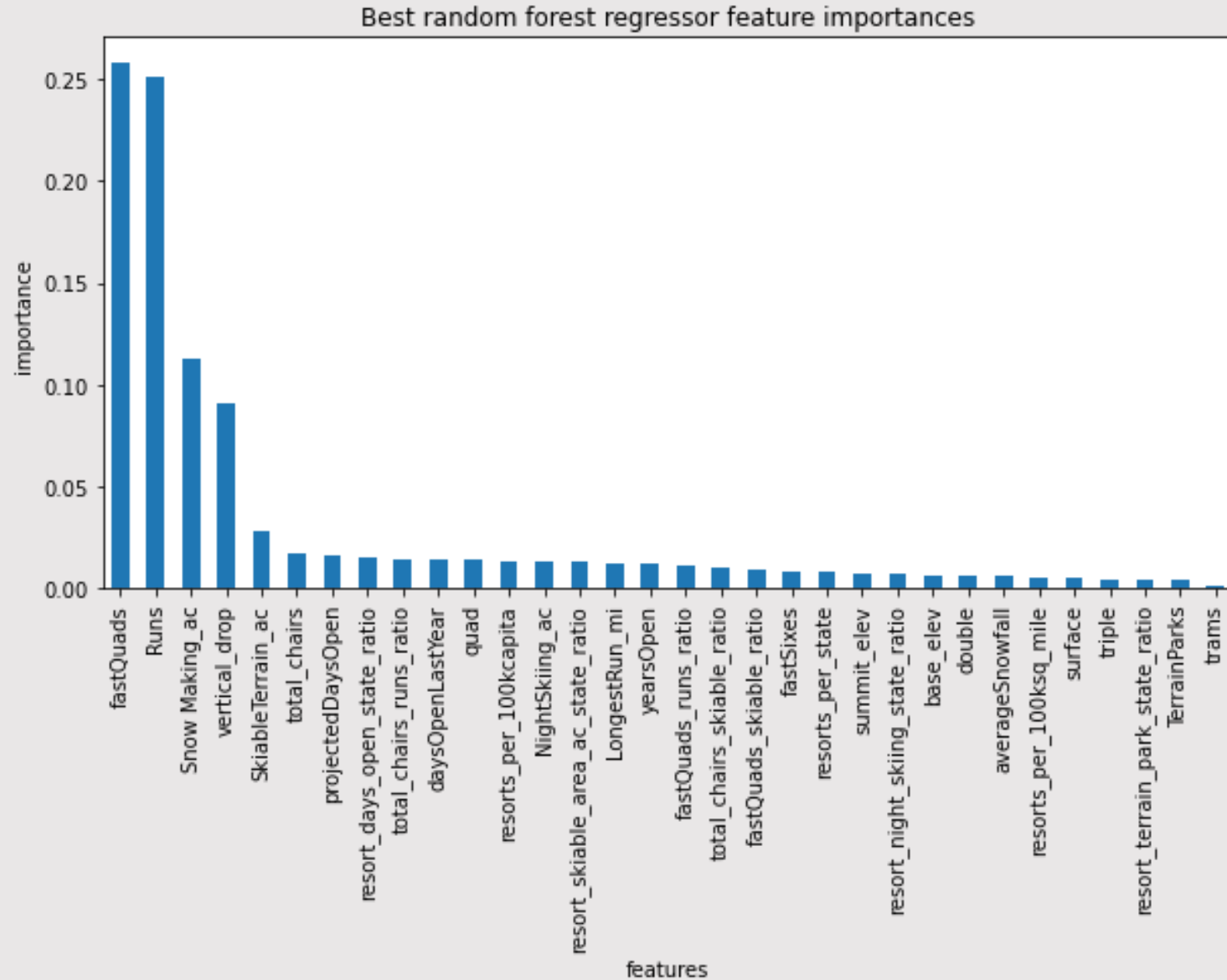
Random forests

69% variance

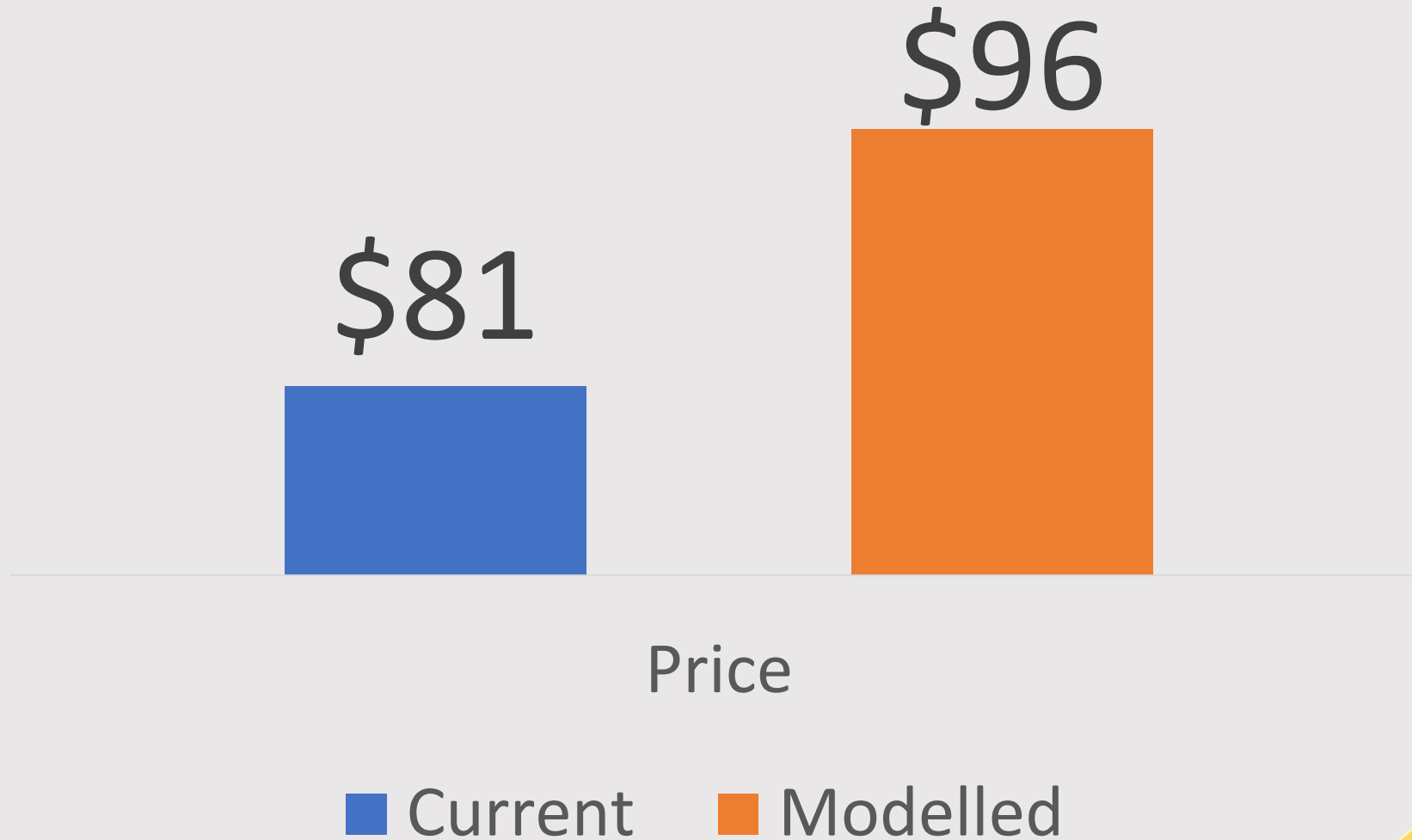


Model generated using random forest is better than linear regression model

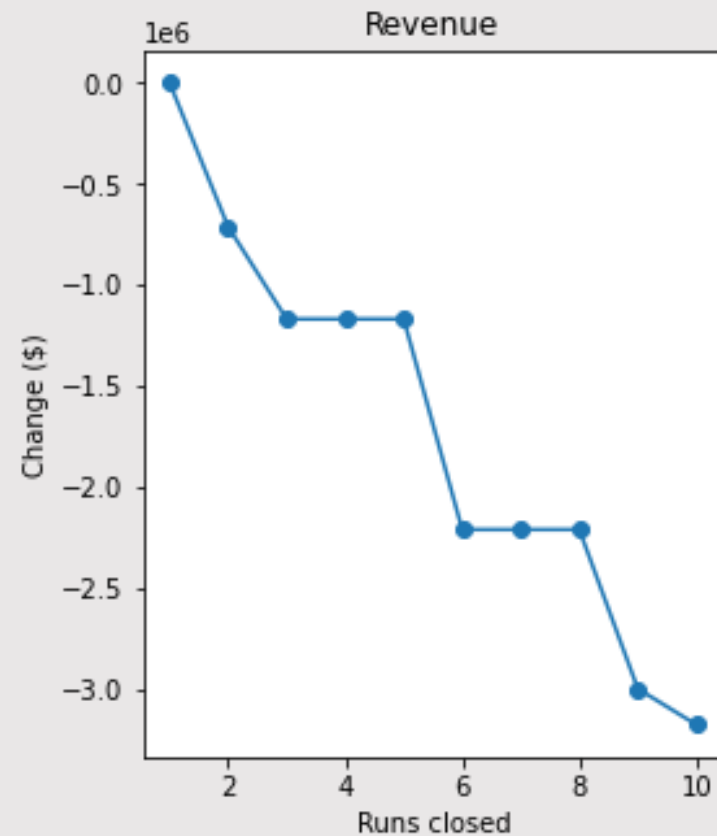
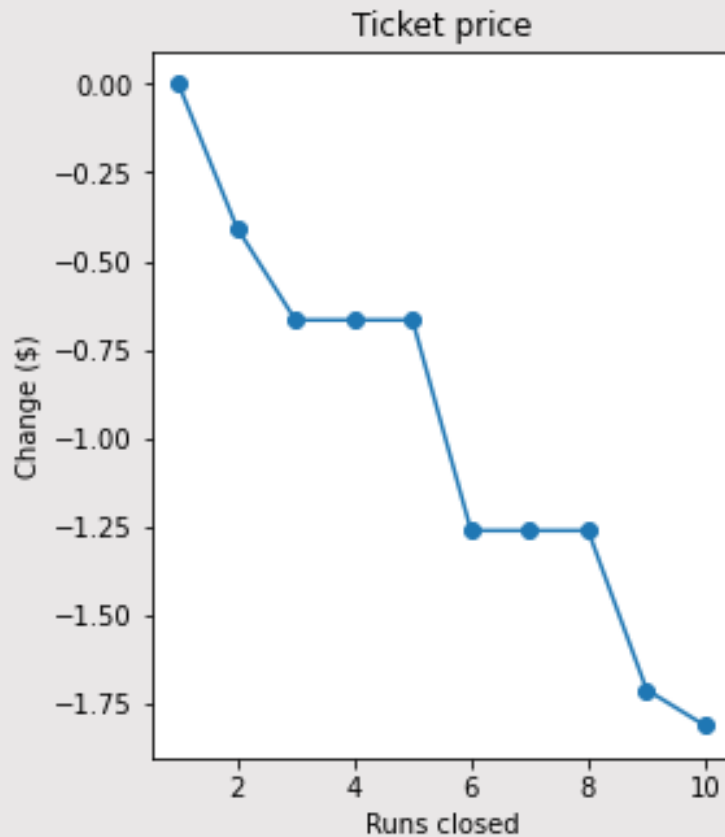
Feature importance



Predicted ticket price

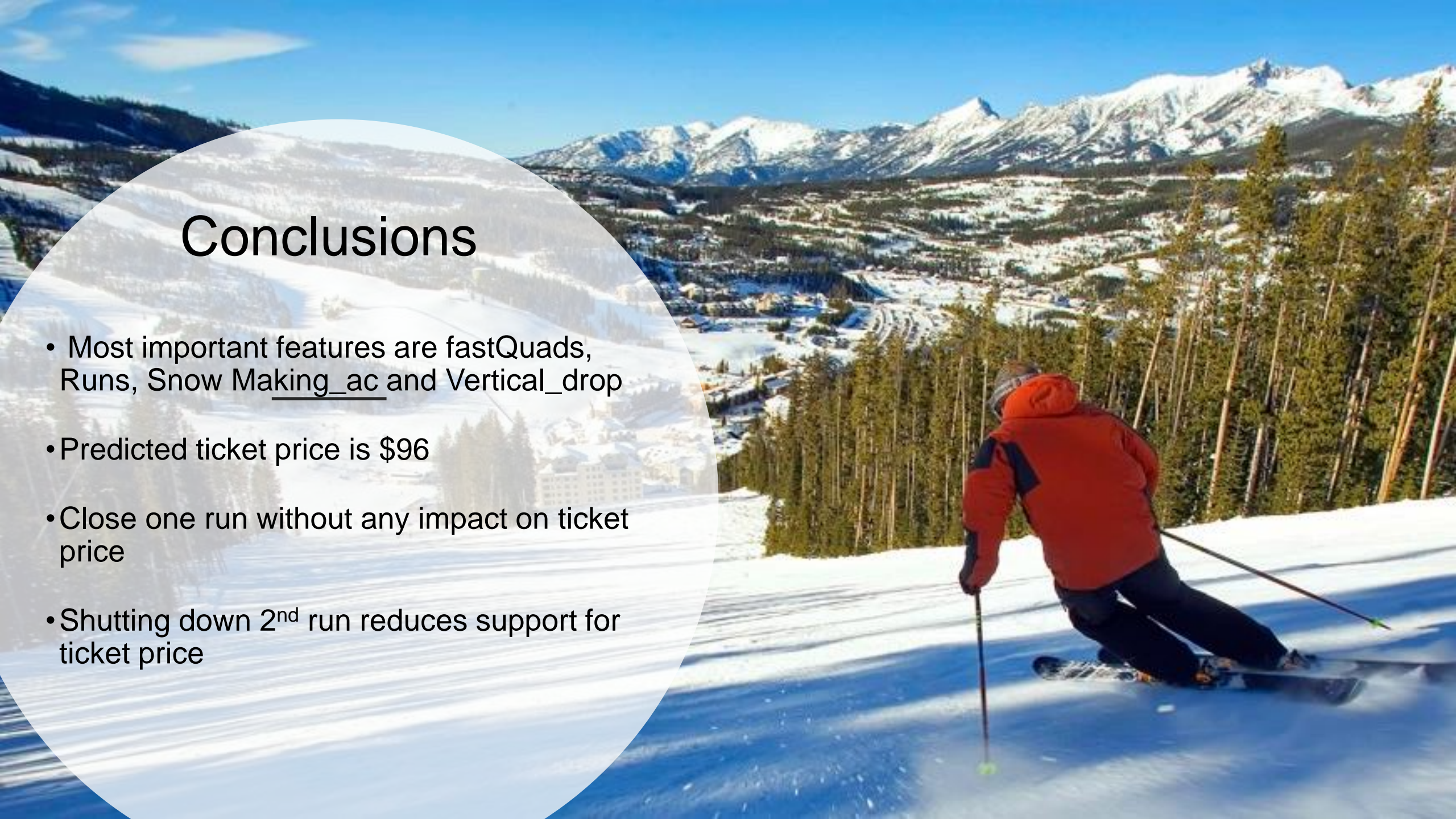


Impact of closing runs on ticket price and revenue



Conclusions

- Most important features are fastQuads, Runs, Snow Making_ac and Vertical_drop
- Predicted ticket price is \$96
- Close one run without any impact on ticket price
- Shutting down 2nd run reduces support for ticket price





THANK YOU