

Team how much does a polar bear weigh?

*Hint: Enough to break the ice

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Methodology and Results

Methodology: Two general methods

Optimization methods involving cross-validated decision trees for customers and gender, one kernel regression for total number of subscribers

Graphical method: reducing the space by applying criteria we thought were important and progressing from there.

Results: North of Tribeca, Greenwich village, and Washington State Park

Graphical model report:

Image report: Based on a few factors:

- 1) distance travelled- encourage more riders
- 2) trip frequency- assumptions:
- 3) gender distributions- Female riders
- 4) Type of customers- non-subscribed

Results: North of Tribeca, and Washington State Park

Criticisms: did not consider safety of area,time of rides, and did not consider tourist numbers which could heavily influence the results

Optimization Methods

- Decision Trees
 - Chose a greedy algorithm to design the decision tree using max information gain per node
- Kernel Regression
 - Chose an optimization method that did not aggressively find optimal CV-bandwidth
- Cross Validation on Decision Trees
 - Chose a Five-Fold CV Method to prune our decision trees

Results: North of Tribeca, and Greenwich Village