



House Investment

PROFIT IN 30 DAYS OR LESS

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Agenda

Purpose

The Data

Visualization

The Models

Recommendation



Purpose

Predict which houses will sell in under 30 days in the towns of Germantown and Gaithersburg.

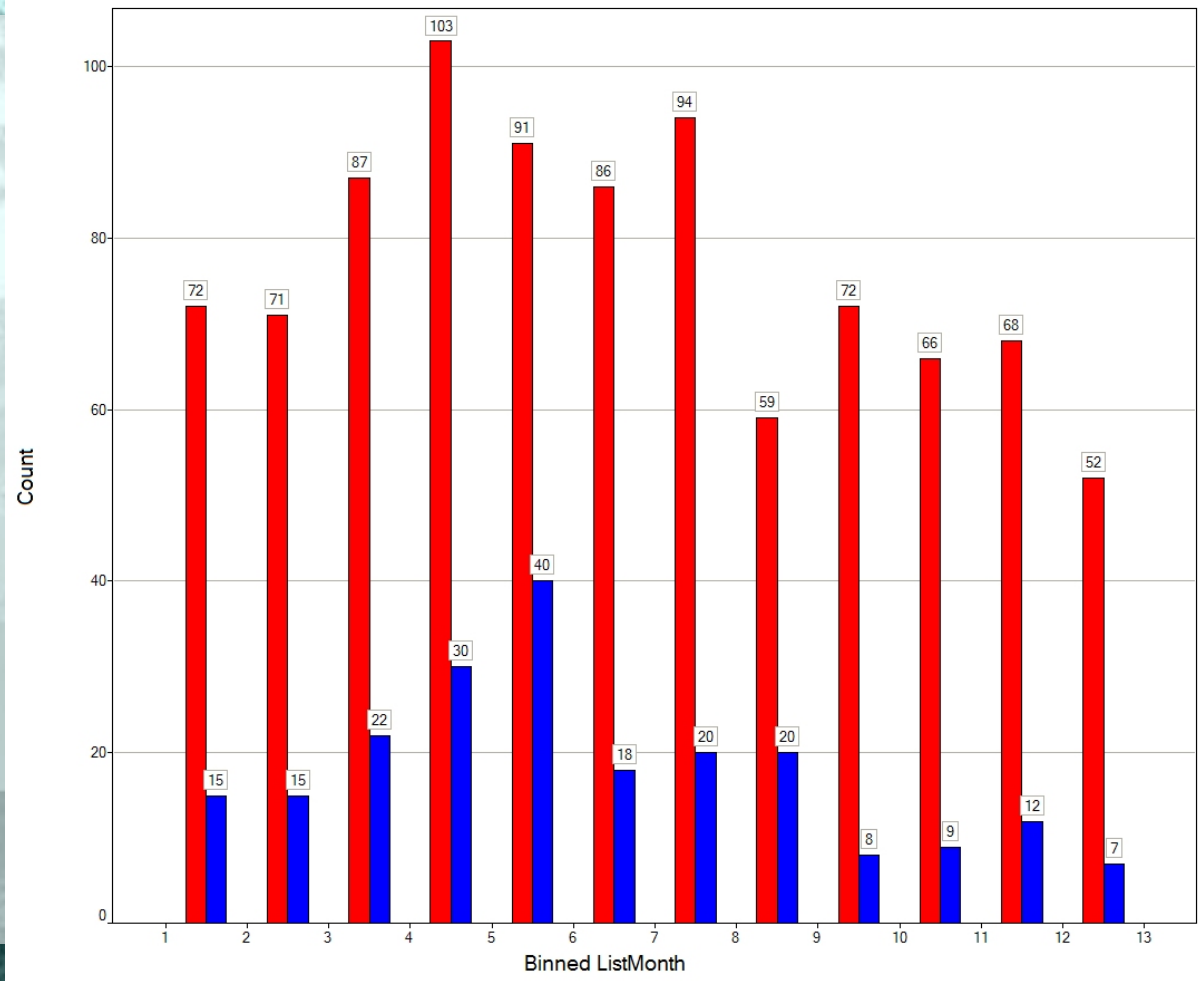
The Data

Collection

- MRIS Data
- Domain Knowledge
- 19% Success Class (Naïve Rule)

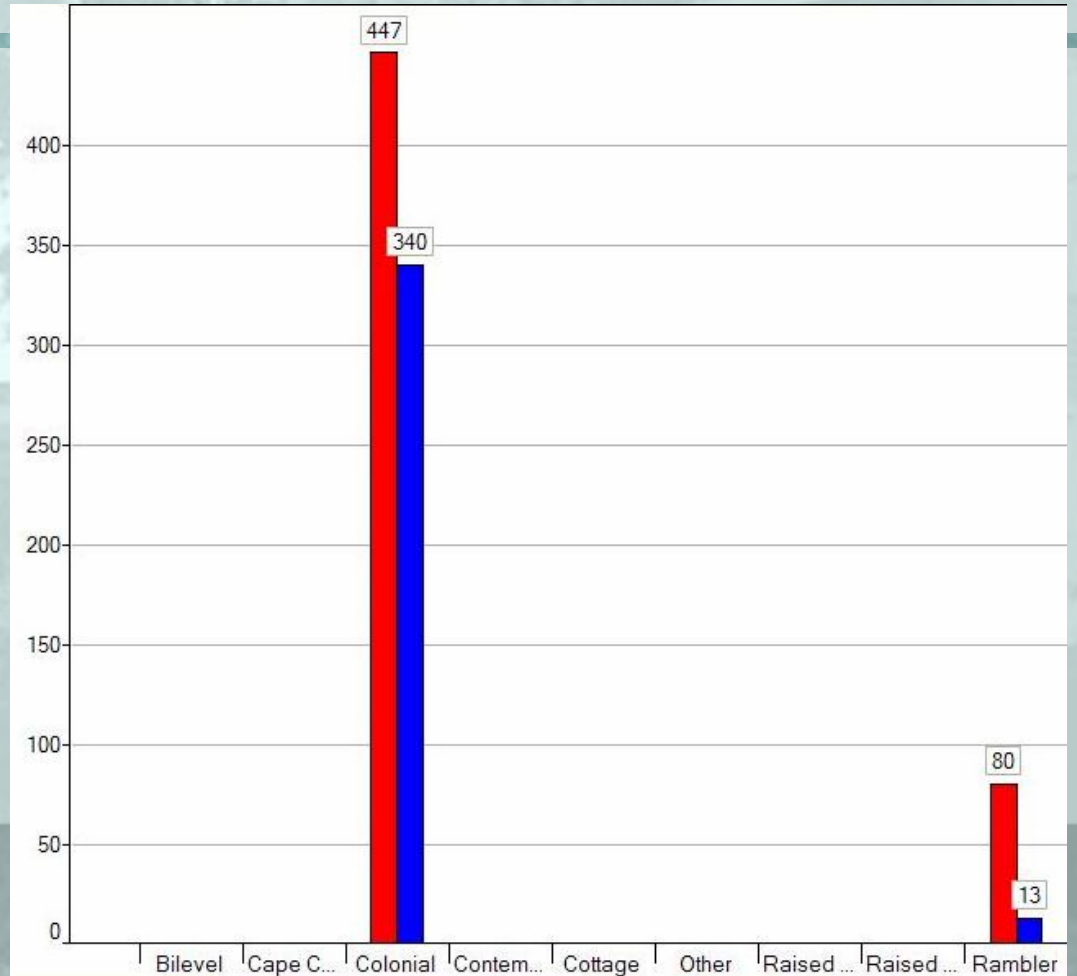
Visualization

ListMonth



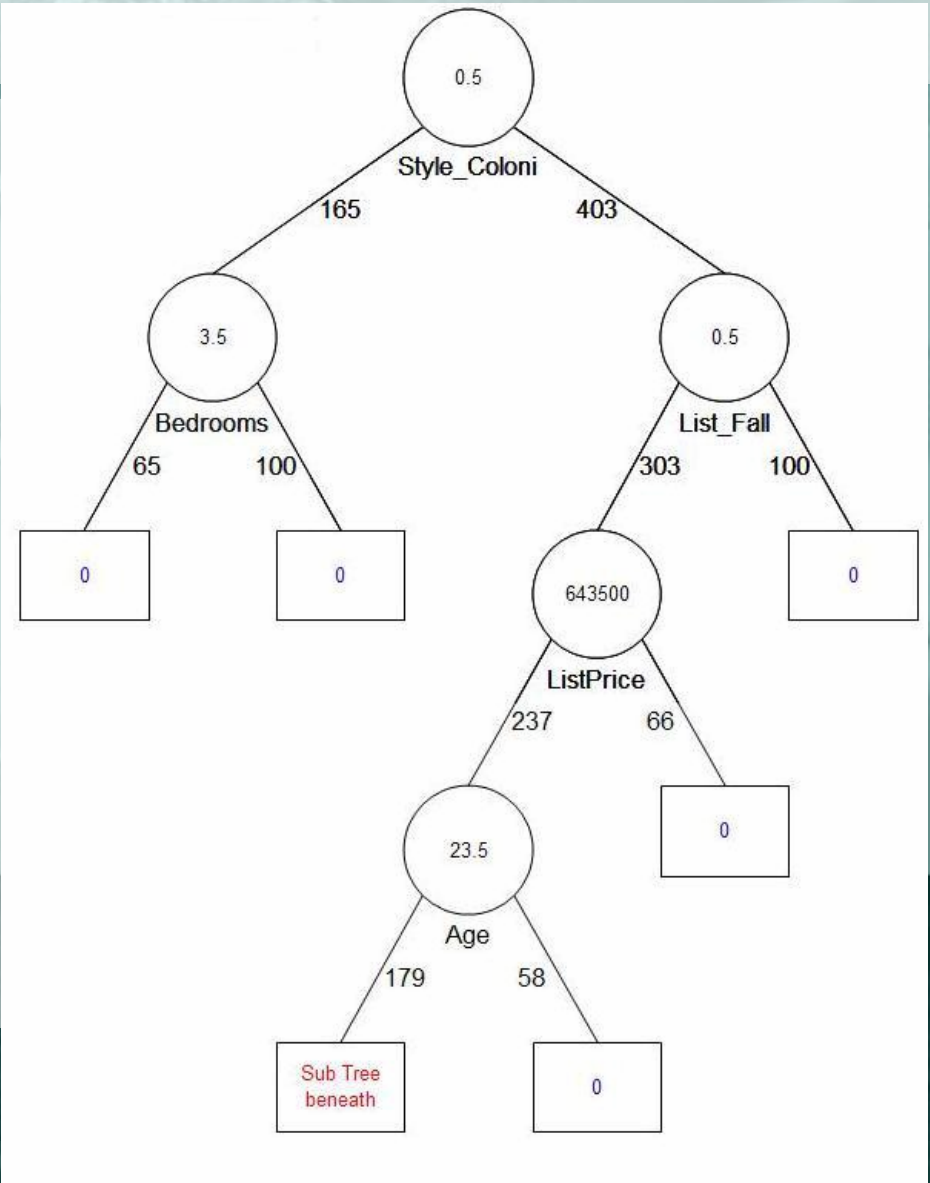
Visualization

Style



Models

Classification Tree



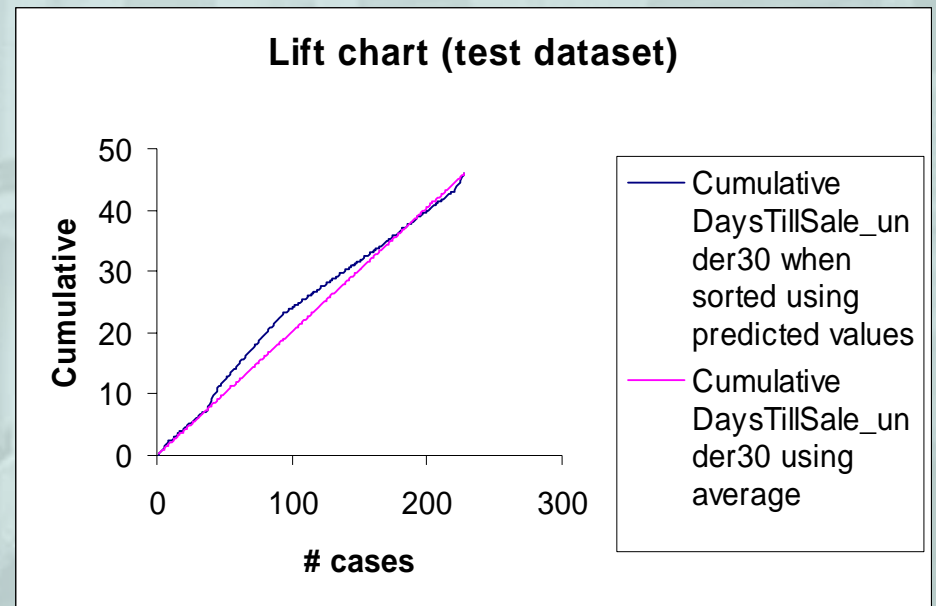
The Models

Logistic Regression

- Colonial Style
- BathsH*BathsF

High error rate

- (Not Useful)

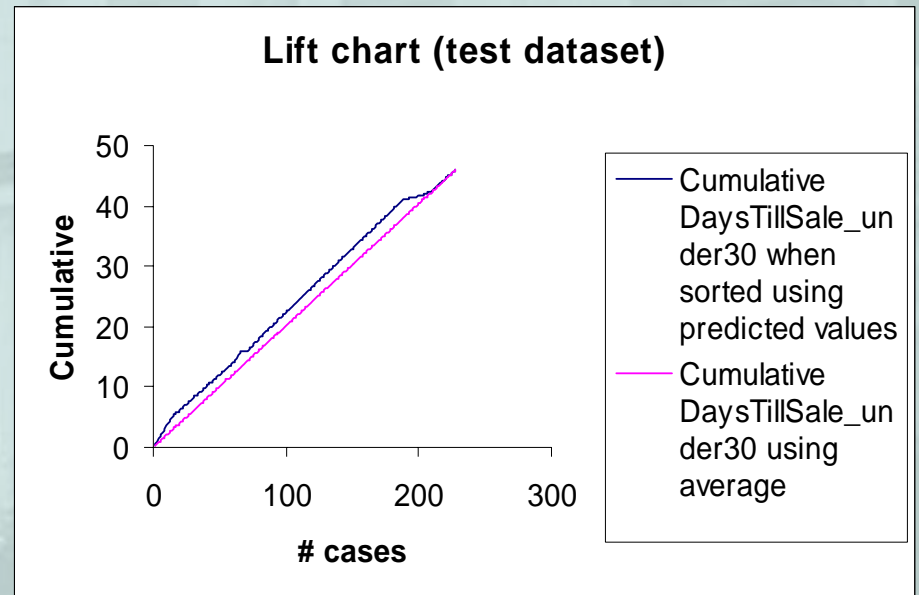


The Models

Discriminant Analysis

- Colonial Style
- Rambler Style
- ListFall
- ListFall*City

LIFT



The Models

Discriminant Analysis

Row Id.	Predicted Class	Actual Class	Prob. for 1 (success)	Style_Colonial	Style_Rambler	List_Fall	List_Fall * City
59	1	0	0.672	0	1	0	0
70	1	0	0.672	0	1	0	0
120	1	0	0.672	0	1	0	0
196	1	0	0.672	0	1	0	0
329	1	0	0.672	0	1	0	0
542	1	0	0.672	0	1	0	0
550	1	0	0.672	0	1	0	0
654	1	0	0.672	0	1	0	0
890	1	0	0.672	0	1	0	0
953	1	1	0.672	0	1	0	0
979	1	1	0.672	0	1	0	0
1006	1	1	0.672	0	1	0	0
1121	1	1	0.672	0	1	0	0
1135	1	1	0.672	0	1	0	0

Recommendation

- **Model cheap and easy**
- **Improves over Naïve rule**
- **Use as the first filter**
- **Other variables to be considered**