

Pet Adoption Speed Analysis

Bloomington Animal Shelter

Wayne Harrison



AGENDA

- ❑ Business Problem
- ❑ Data
- ❑ Model
- ❑ Recommendations/Conclusion



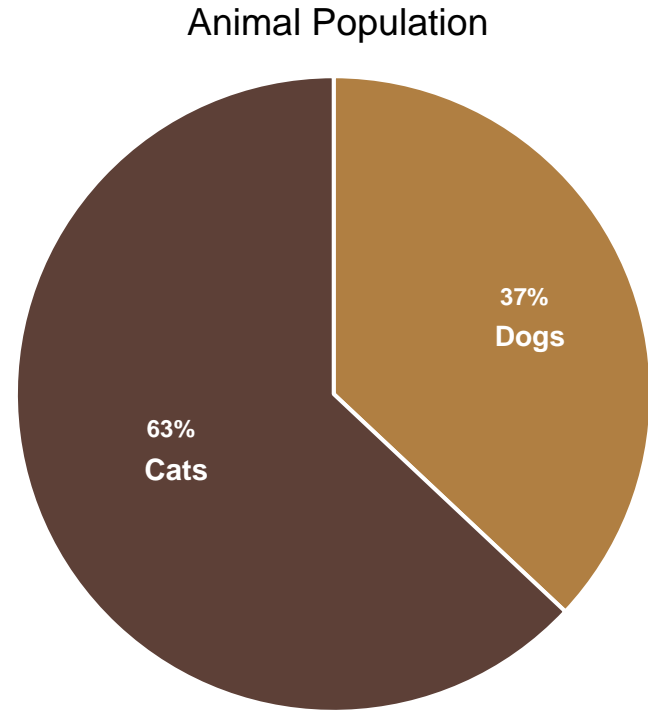
Business Problem

- ASPCA is studying adoptions trend for dogs and cats
- Identify the pets that take the longest to get adopted
- Avoid Euthanizations



DATA

- Bloomington Open Data Portal
- Over 18k Animals
- 23 features about each animal.
Age, Breed, Color, Outcomes
- **Adoption Speed Standards**
 - Dogs: Before 21 days
 - Cats: Within a Month

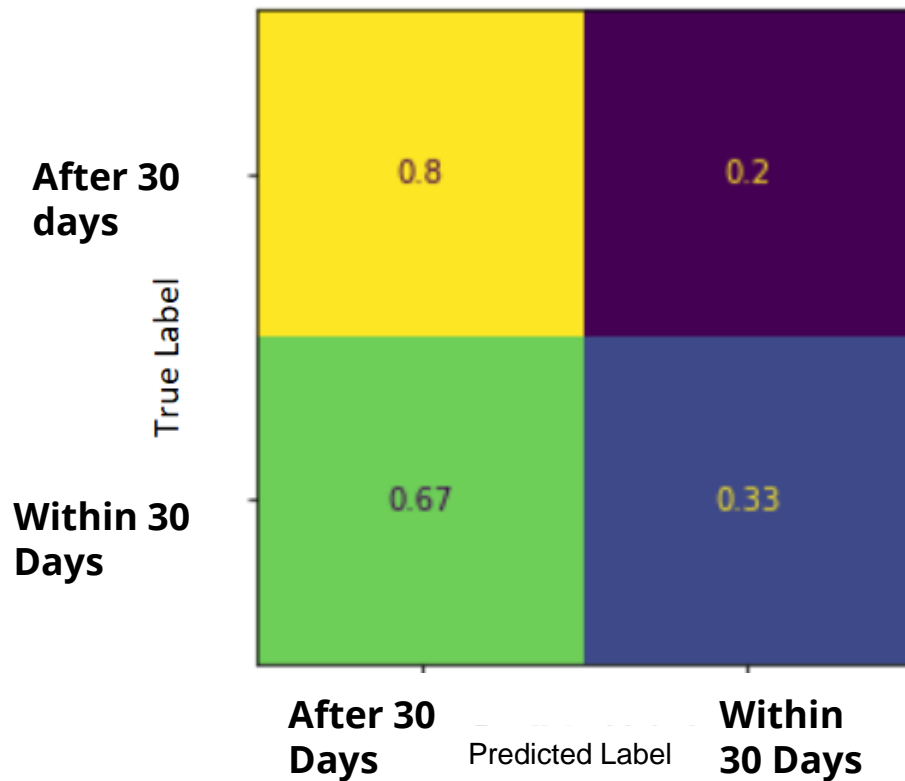


Model Evaluation: Cat Adoption Speed

Logistic Regression

Precision score = 59%

False Positive Rate = 20%

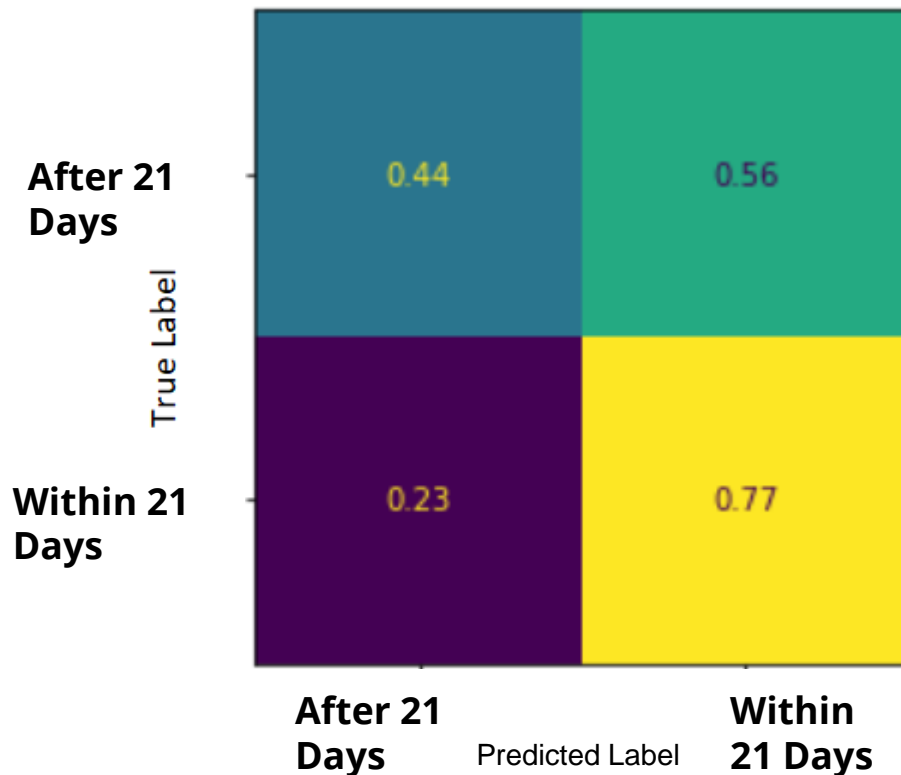


Model Evaluation: Dog Adoption Speed

Logistic Regression

Precision score = 64%

False Positive Rate = 56%



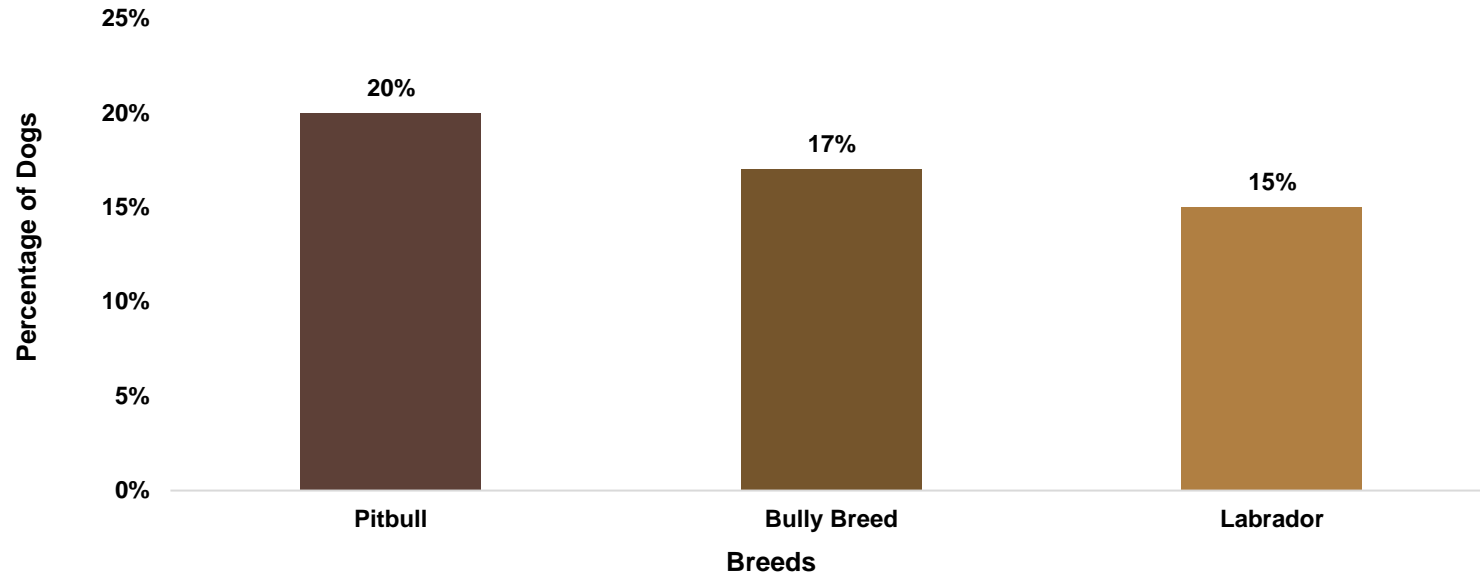
Feature Importance

Characteristics that the model finds Important when predicting that an animal will have trouble getting adopted.

Dogs	Cats
Mastiffs	Cats that were abandoned
Pitbulls	Female Cats
Bully Breeds	Brown and Black coats

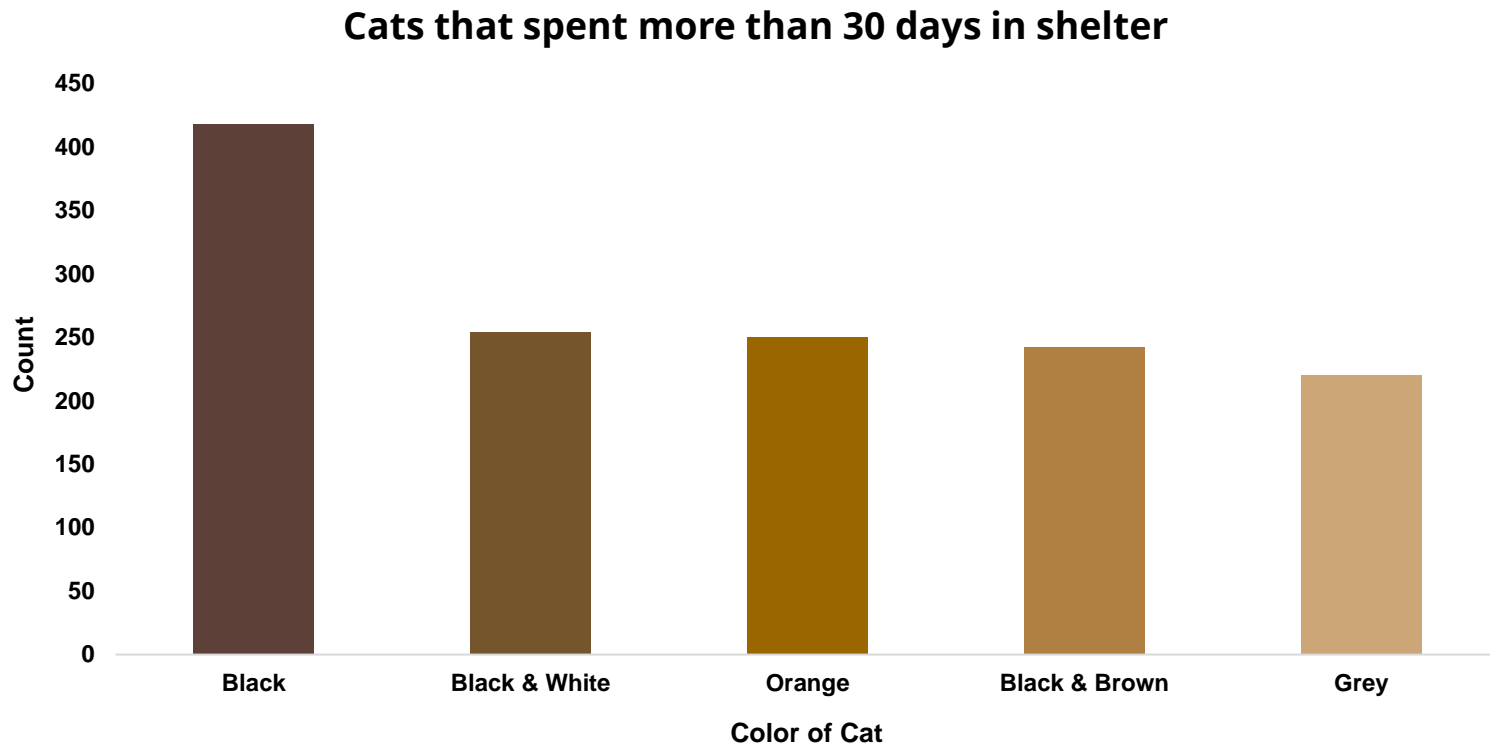
Dog Findings

Most Euthanized Breeds In Bloomington Animal Shelter



Pitbulls only make up 5% of the dog population

Dog Findings



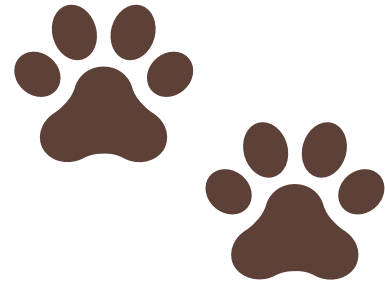
Recommendations

- Release more literature addressing the stigma about black cats
- Use the media to portray Pit bulls in a more positive light
- Strategically stage animals with unfavorable characteristics



Future Work

- Study how an animal's sociability affects adoption speed
- Analyze shelters in different regions and see if the trends are similar
- Investigate how the time of year affects which animals get adopted



Questions

<https://github.com/wharr1203/BloomingtonPetAdoption.git>

wharr1203@gmail.com

