Predicting Pet Adoption Speeds on Petfinder

Rob Zhang

petfinder®

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ODI

Dog	Mixed Breed
Profile	Male, 2 Years 10 Months
Vaccinated	Yes
Dewormed	Yes
Neutered	Yes
Condition	Healthy
Body	Medium Size, Short Fur
Color	Black, Brown, Golden
Location	Petaling Jaya, Selangor
Posted	14 Aug 2019 (Updated 14 Sep 2019)
Adoption Fee	FREE

For Adoption

Owner
Preetibruno63

Send Email

View Phone

2 Comments

Hi,I rescued Odi some 2yrs+ ago and was adopted by a foreigner fmly.I received him back since the left the country.Odi is vaccinated,dewormed,deteaked given heartworm vaccination.Odi is a beautiful well mannered dog,shakes hand wt ur friends,understands instructions such as calm down,relax&etc.He enjoys walking,hiking.Needs an active owner who enjoys life wt him.Good companion.Love to keep him but already have 4 At home.

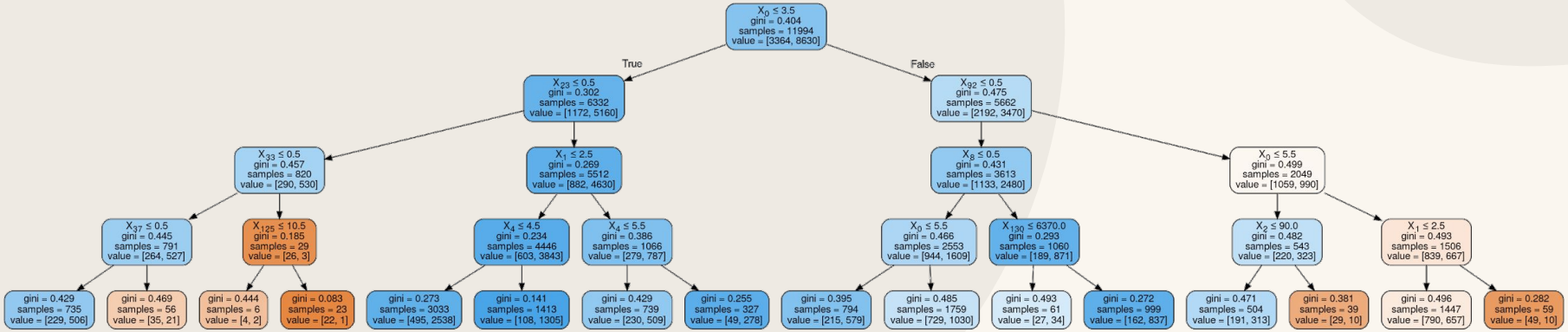
- 15k total listings (cats and dogs)
- Most include photos
- Physical attributes
- Short bio
- Adopted within 3 months or not

aws
TextBlob
pillow
The friendly PIL fork
scikit
learn
OpenCV
Vader Sentiment

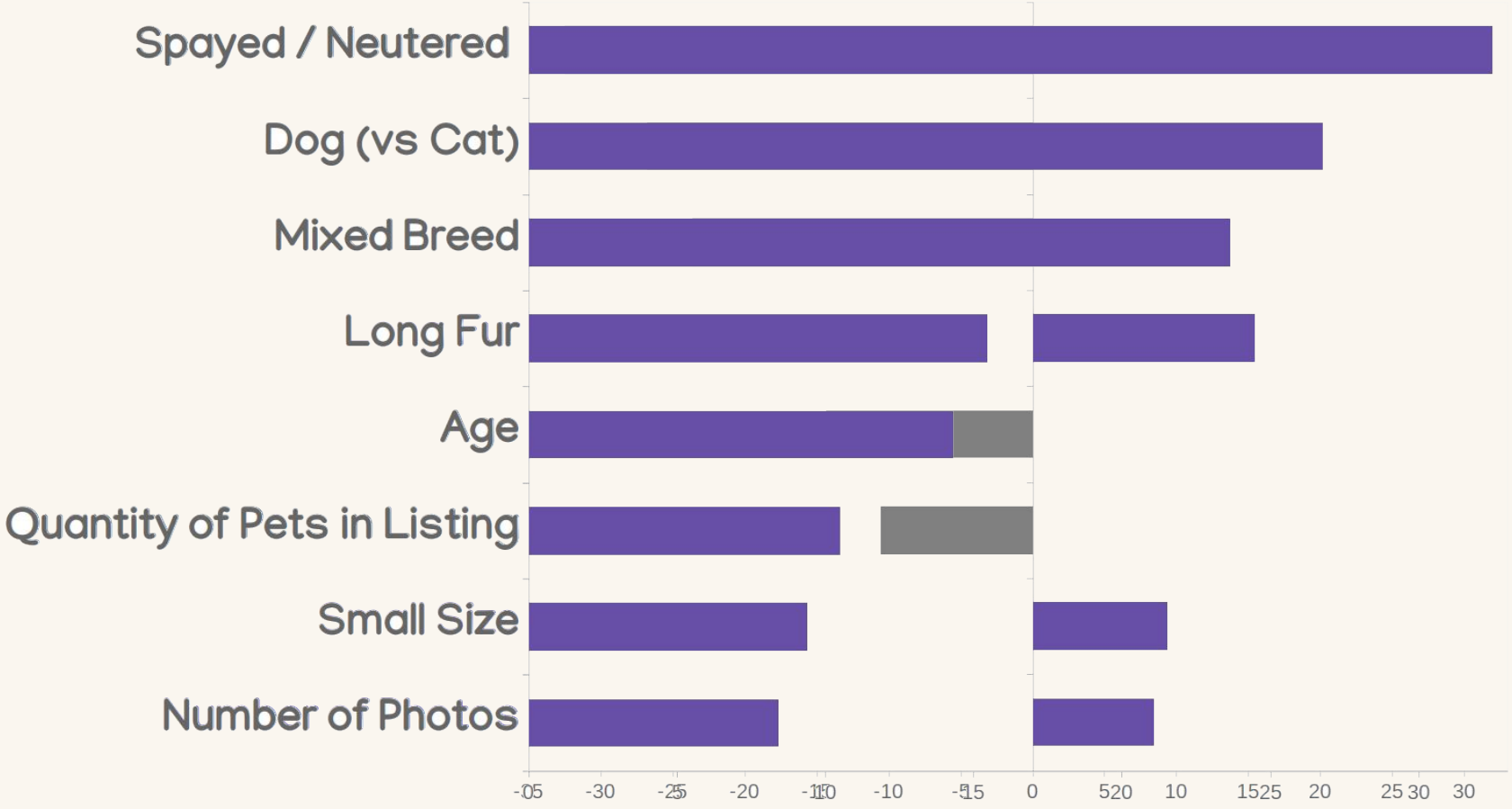
- Most desirable features?
- Impact of listing description and images on adoption speed?
- Predictive model to target pets least likely to be adopted?

XGBoost Provided the Best Model

- Gradient boosting decision tree algorithm
- Accuracy: 84.8%
- Built-in feature importance results



XGBoost Feature Importance (Gain)



Recommendations

Impactful

- Decrease:
  Number of pets / listing
- Increase:
  Number of photos
- Spay / Neuter ?

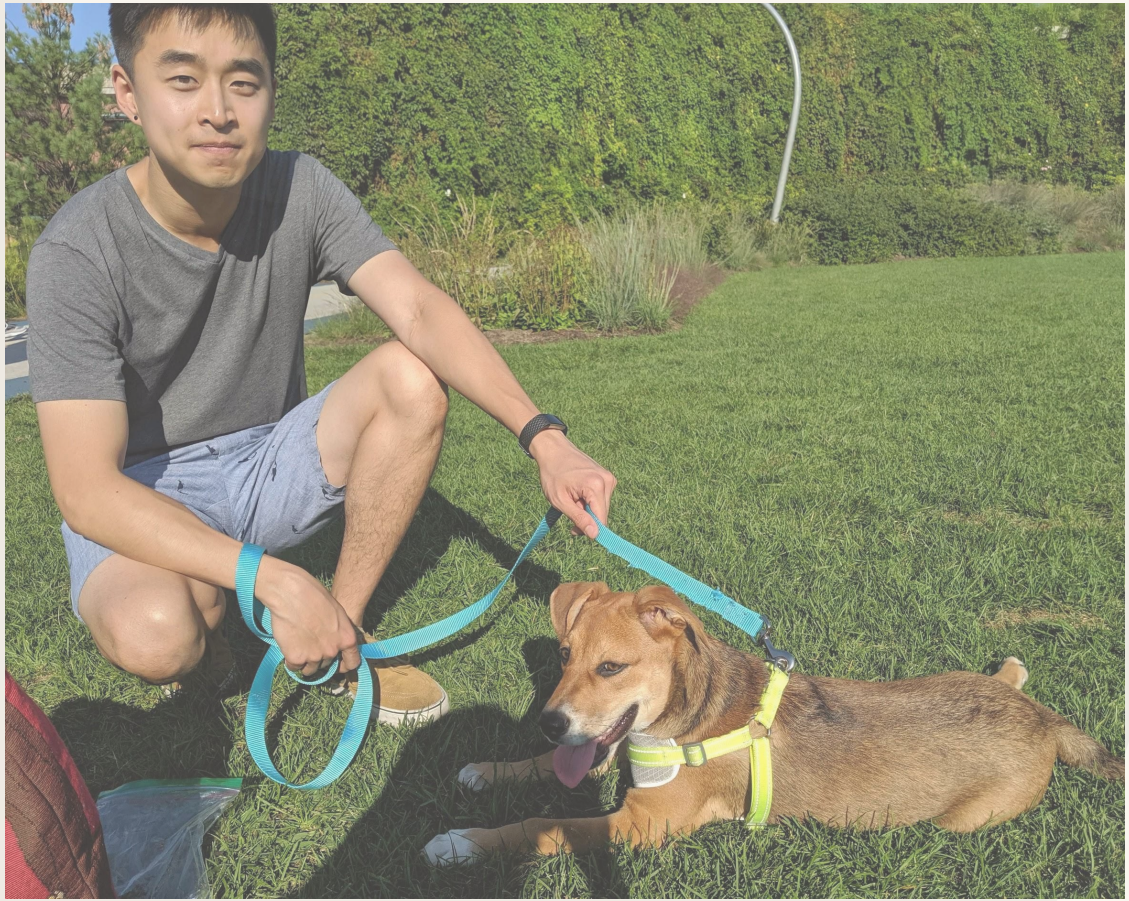
Non-Impactful

- Pet's bio
- Photo attributes

Final Thoughts

Other applications:

- Online shopping
- Food delivery services
- Dating profiles



THANKS!

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