

Project overview and path forward

Factors that affect pet adoption speed

Tim from petfinder.com



Why pet adoption?



The Addams
Family Litter from
[petfinder.com](https://www.petfinder.com)

All of our group either likes pets or has pets, and finding the reasons which contribute to the speed at which different pets are adopted. One thing we wanted to bring to the forefront was the idea of adopting from a shelter over a specific pet breeder, since often shelters have pets that remain unadopted for significant amounts of time.

Data Description



Baxter(adopted)
from [petfinder.com](https://www.petfinder.com)

Our data contains thousands of entries of pets, each of which contains information including

- breed,
- fur color and fur length
- age
- vaccination status
- number of pictures
- a description of the pet

and the list goes on

How is the data going to answer our question

We are trying to find out which attributes most effect adoption speeds. First we will need to be able to predict the outcome of adoption speeds of the pets, and from there we can find out the largest factors that play into adoption speed.



Wren from
[petfinder.com](https://www.petfinder.com)

Data Exploration



Calvin from petfinder.com

We found 12 nulls in description, we dropped those entries as the number of nulls was low

Binned quantity of pets, entries containing 6 or more pets were binned

Binned fee into 5 categories

0 - free

1 - \$1-\$50

2 - \$51 - \$100

3 - \$101 - \$150

4 - \$151 - \$200

5 - \$201+

Binned photo amount, entries containing 13 or more pictures were also binned

We changed description to a length, as it is something measurable we can include,

Description of the analysis phase



Luca from
[petfinder.com](https://www.petfinder.com)

We will be using random forest classifiers, followed by a train test split at 75/25, but we will use a standard scaler prior to the train test split. We will use feature importance to improve our prediction model.

We have 14981 data points with 5 possible outcomes for adoption speed

- 0 - adopted the same day of listing
- 1 - adopted on the first week of listing
- 2 - adopted on the first month of listing (7-30 days)
- 3 - adopted on the 2nd or 3rd month following the listing
- 4 - stayed over 90 days of listing

Thank you!

Fluff from petfinder.com



Pet sources

Tim

Addams Family Litter

Baxter(adopted)

Wren

Calvin

Luca

Fluff