# PetFinder.my
# Adoption Speed Prediction

# The goal

Given data on pets put up for adoption on PetFinder.my, predict how quickly a pet will be adopted.

# Variables

| Breed | Age | Color | Name | Description |
|-------|-----|-------|------|-------------|
| Photos | Videos | Maturity Size | Vaccinated | Fee |
| Health | State | Fur Length | Gender | Quantity |

# Target - Adoption Speed

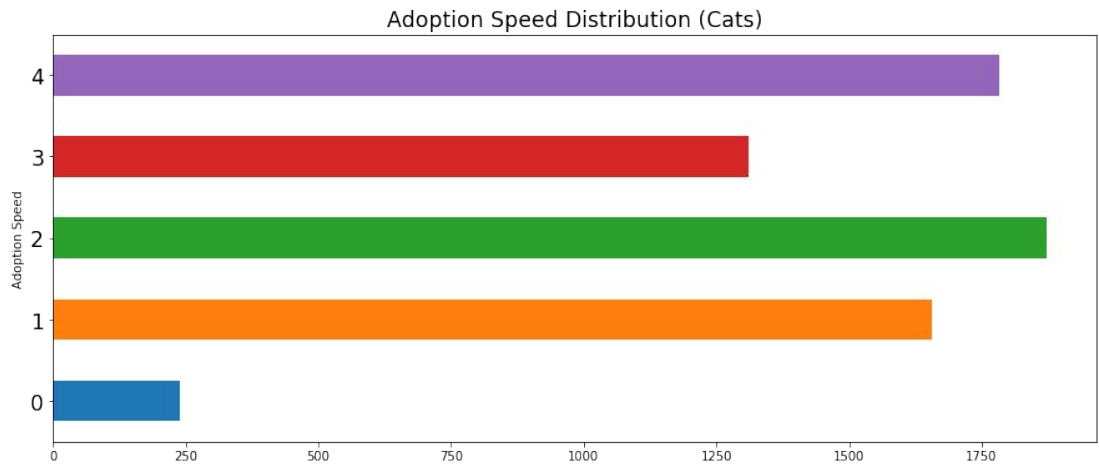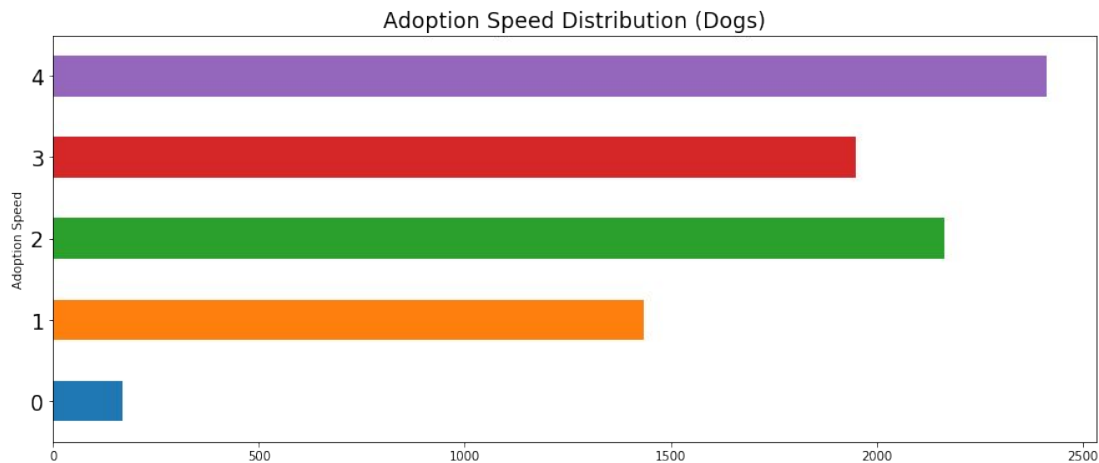0 - Adopted on the same day as listed

1 - Adopted between 1 and 7 days

2 - Adopted between 8 and 30 days
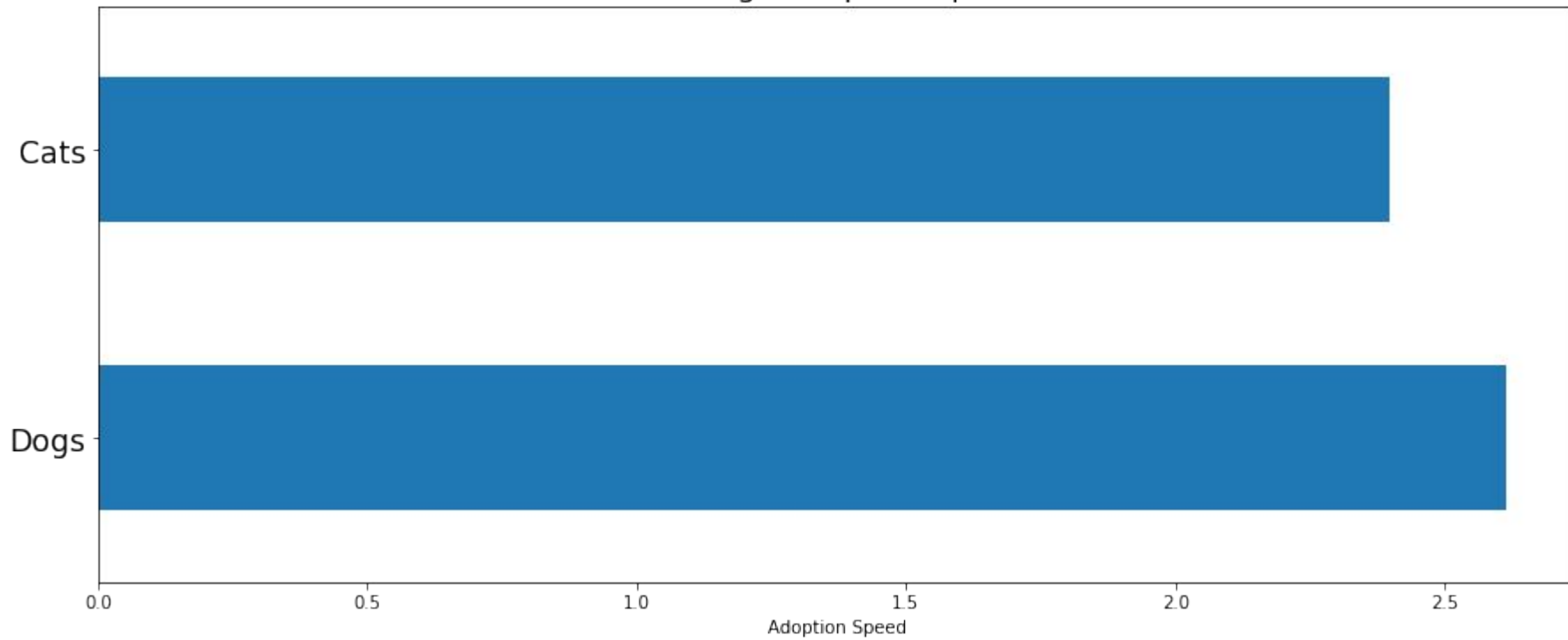
3 - Adopted between 31 and 90 days

4 - No adoption after 100 days
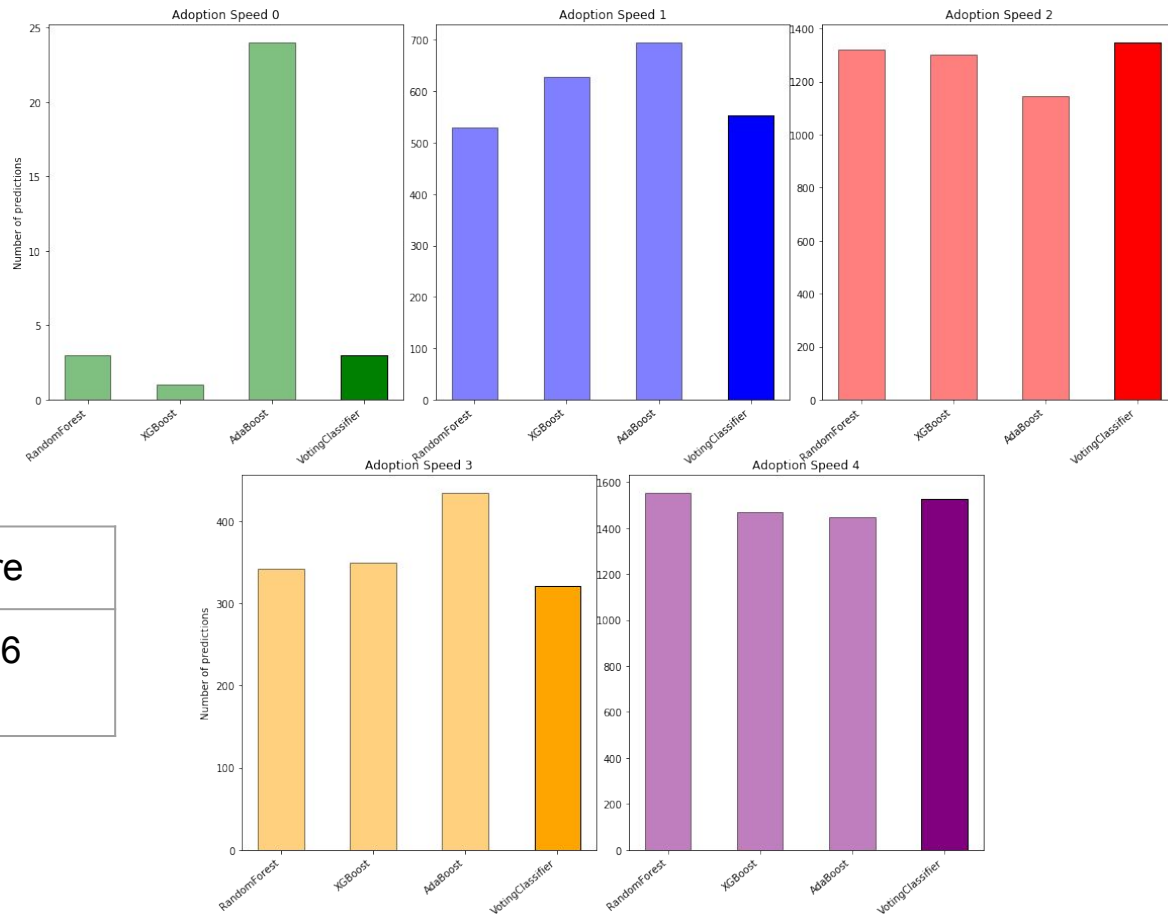
# Adoption Speed Distribution



Adoption Speed Distribution (Dogs)

Adoption Speed Distribution (Cats)

Average Adoption Speed

# Training

| Method | Baseline Score* | Tuned Score* |
|---|---|---|
| Random Forest | 0.293 | 0.358 |
| XGBoost | 0.369 | 0.383 |
| Adaboost | 0.330 | 0.347 |

# Ensemble



| Method | Score |
|---|---|
| Voting Classifier* | 0.386 |

# Final model performance*

| Score | 0.333 |
|-------|-------|

# Future improvements

1)      Improve predictions of Adoption Speed 0

2)      Testing inclusion/exclusion of certain variables

3)      Deeper exploration of photos and descriptions