Data Set

Train size: 14993   Test size: 4000

Tabular Data

	AdoptionSpeed	PetID	Age	Name	Vaccinated	Fee
0	2.0	86e1089a3	3	Nibble	2	100
1	0.0	6296e909a	1	No Name Yet	3	0

Adoption Speed:
0 – same day
1 – 1 week
2 – 1 month
3 – 3 month
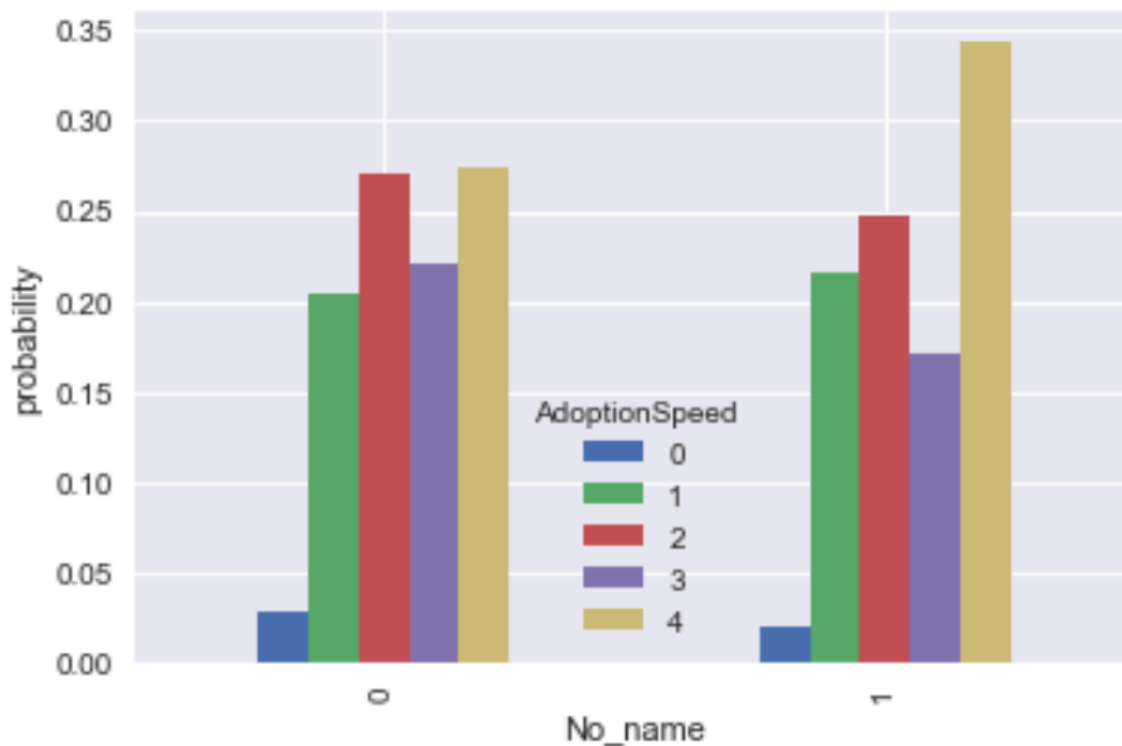4 – No adoption after 3 month

Image data

Text data

We (my family and I) found these lovely pups in a bush near a restaurant we frequently visit. The restaurant owner had been kind to feed them all the while. If we had not taken them in, the pups would not have made it in such harsh weather conditions and with the number of dominant strays in the area. The pups are doing well and healthy! They are a playful bunch and are in need of a forever home.

Exploratory Data Analysis and Feature Engineering

- Animals with missing information have lower probability of being adopted (name, gender, health)

Exploratory Data Analysis and Feature Engineering (con'd)

- Pets with high fee tend to be adopted quite fast!

- Top 5 rescuers managed 10% of the pets. Rescuers that manage more pets tend to increase the adoption rate of their pets.

- Healthy and dewormed pets tend to be adopted faster. Pets with minor injuries aren't adopted well.

Gradient Boosting Model (LightGBM)

- Number of features: 72
- Evaluation metric: quadratic weighted kappa (0, 1)
- Score of my model: 0.423
- Rank: top 20%

Future Plan

- Extract more features from sentiment/image data
- Try out more machine learning model frameworks
- Deal with mismatch features