

What Factors Influence Adoption Likelihood of Different Pets?

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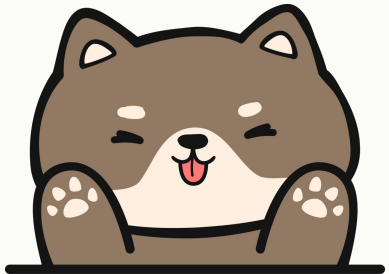


What Factors Make a Pet More Likely to Be Adopted?

Motivation

- Shelters are often overcrowded
- Find which pets need extra help getting adopted



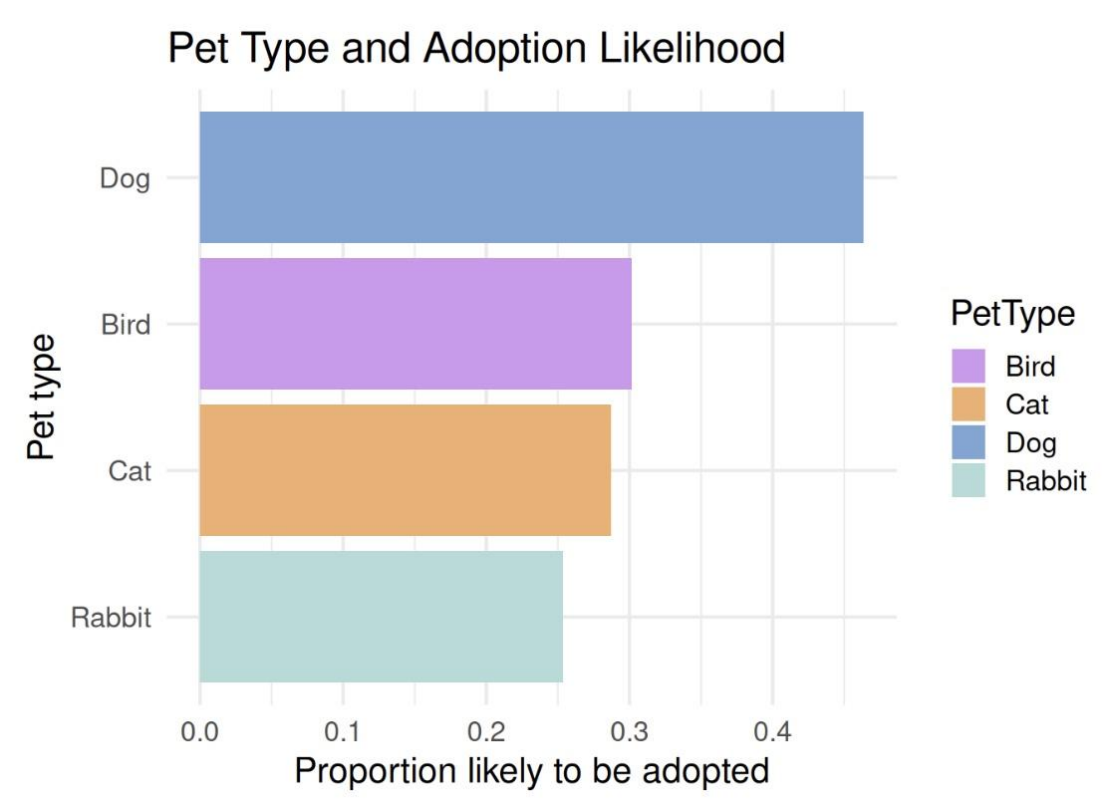
Data

- Kaggle (Rabie El Kharoua)
- 2,007 pets: dogs, cats, birds, rabbits
- Synthetic, not real shelter records
- Outcome: likely (1) vs. unlikely (0) to be adopted

Hypothesis

- We hypothesize that pet type, weight, age, adoption fees, and vaccination status will impact adoption likelihood.

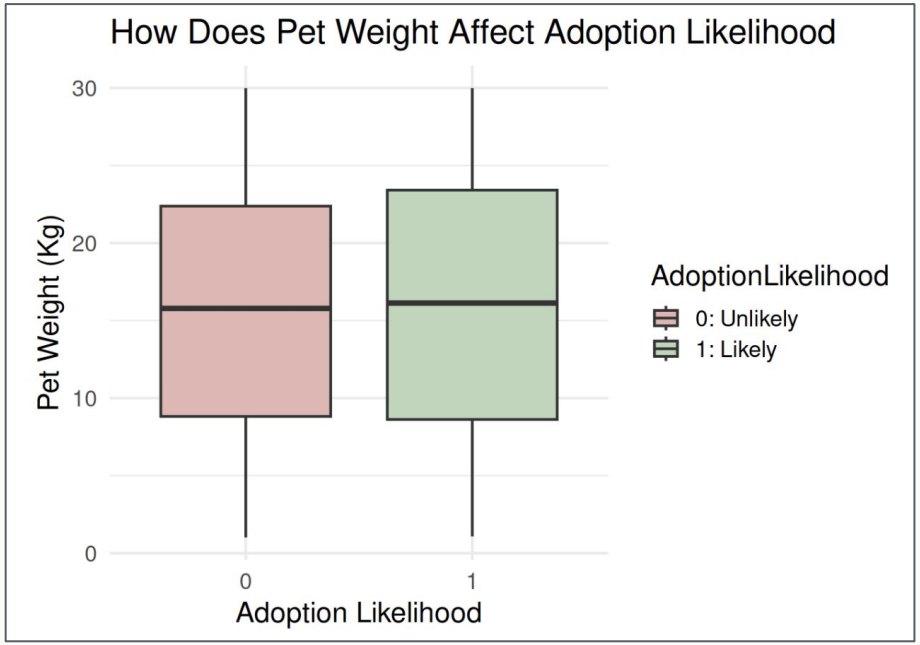
Does Pet Type Influence Adoption Likelihood?

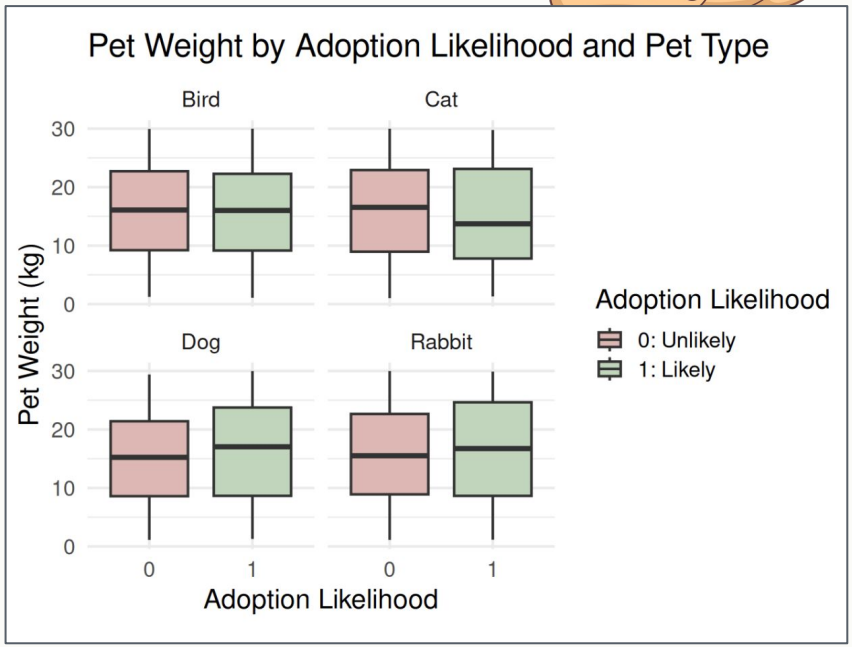


- **Dogs:** highest (~0.46)
- **Birds** (~0.30) and **cats** (~0.29): close behind
- **Rabbits:** lowest (~0.26)
- Clearer difference than weight

Does Pet Weight Influence Adoption Rates

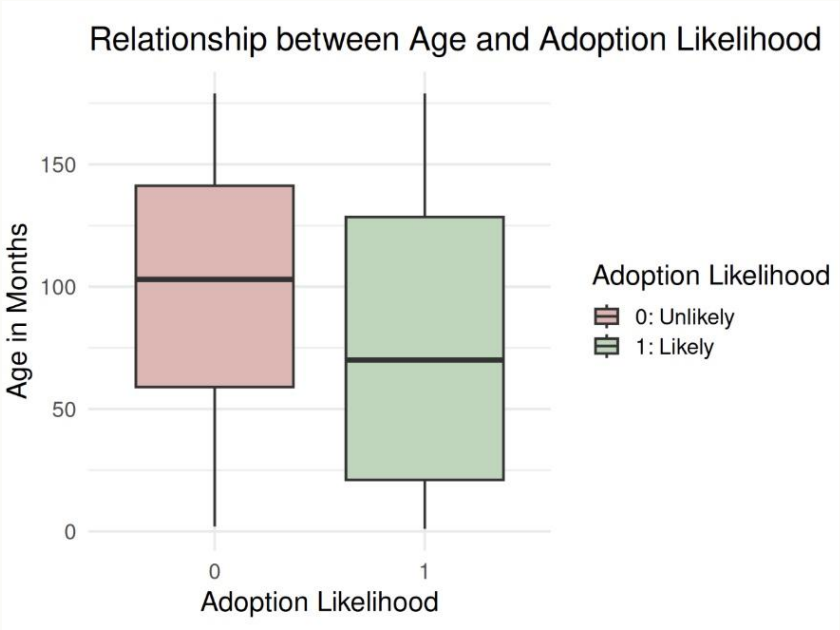


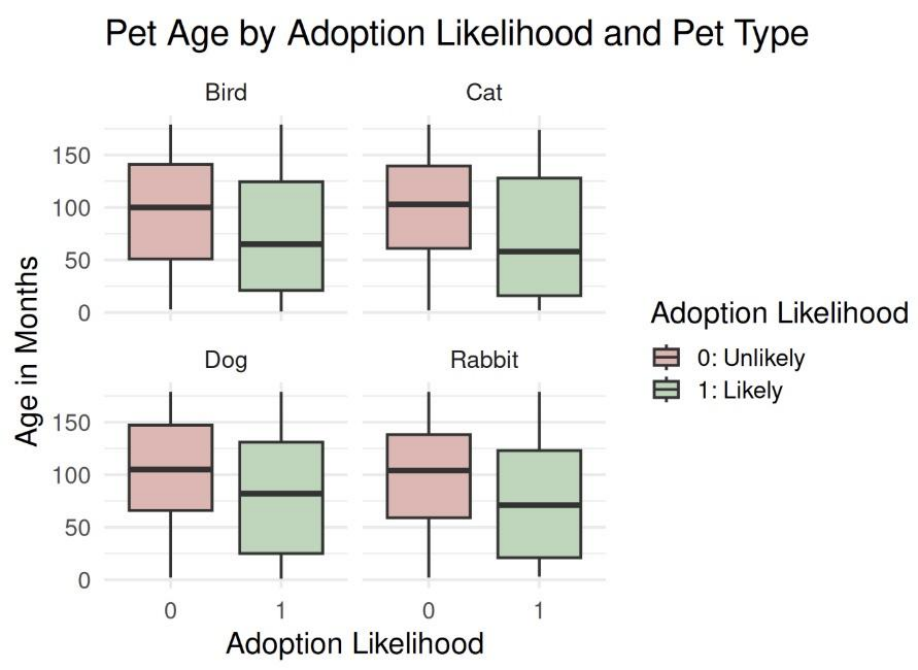




- Both adoption groups had median weights of approximately 16 kg.
- Dogs and rabbits showed slightly higher median weights among likely-to-be-adopted pets, while cats showed the opposite trend.
- Weight showed little overall association with adoption likelihood.

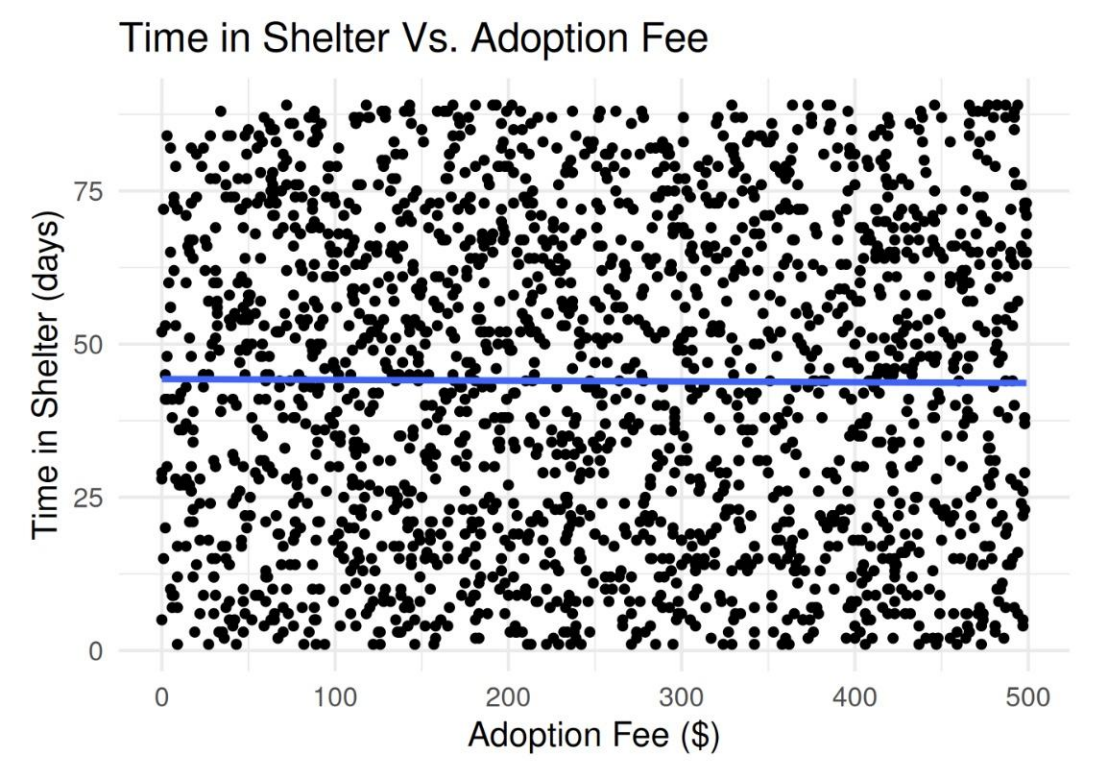
Is there a relationship between pet Age and Adoption Likelihood?





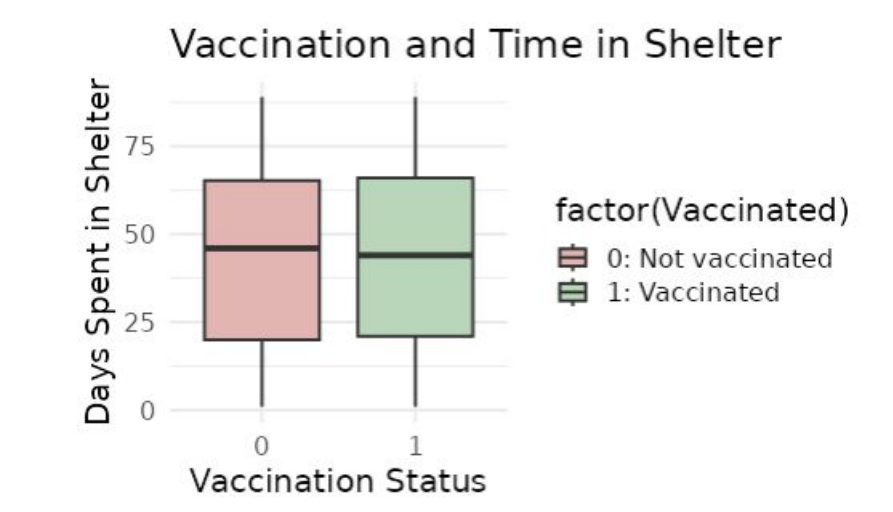
- Pets that are likely to be adopted has a visibly lower median age (around 70 months) compared to pets that are unlikely to be adopted.
- This stays consistent across pet types, where, for the pets that are likely to be adopted, the median age is lower than the pets unlikely to be adopted.

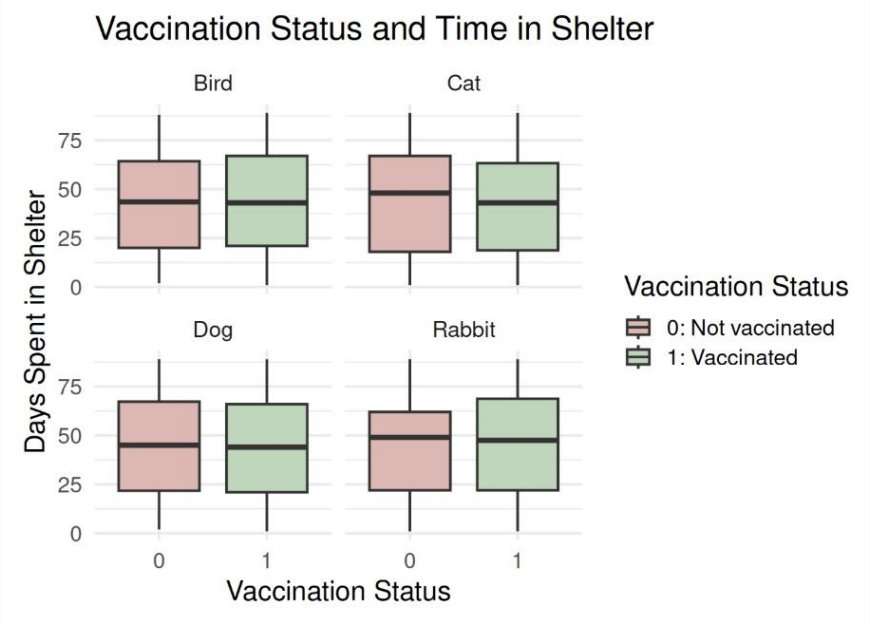
Is there a relationship between adoption fee and time in shelter?



- There is no observed correlation between adoption fee and time in shelter

Does Pet Vaccination Status Influence Adoption?





- Overall, *vaccination status* showed little influence of the amount of days animals spent in shelters
- Largest difference appears with cats, approx. 50 days spent in shelter for unvaccinated cats and approx. 40 days for vaccinated cats
- When looking at pet type (groups), little variation in median values

Conclusion & Limitations

- What factor presents itself to have the largest effect on the likelihood of pet adoption...we don't really know
  - Pet Age and Pet Type seemed to be the only graphs to show some relationship with adoption likelihood
- Synthetically formulated data
- Results may have displayed clearer answer to research question if ***real*** data was used for analysis
  - Consider how data was generated? Validity?
- Limited representativeness (only dogs, cats, birds, and rabbits were observed)





That’s all folks!
Thanks for listening.

