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# Animal Shelter Predictions

## Report

## Our Objective

The European Union estimates that there are about one hundred million abandoned animals in Europe, many of which end up in shelters. A considerable amount of these animals remain here for a long time or are euthanised in connection with overcrowding.

This tool was made to give shelters a better insight into their future occupation. Governments can be given a warning ahead of time when extra budget and campaigning is necessary.

This is done by estimating the adoption speed of an animal based on its characteristics such as whether it's a dog or a cat, how old the animal is and what colour its fur is.

## How Does It Work?

The project uses Machine Learning to estimate the likelihood of an animal being adopted within a certain time period.



It does this based on the type, breed, gender, name, colour, intake type, condition, date of birth and intake date of the animal. The more information is supplied, the more accurate the results will be.

## How Does It Perform?

The results you receive have an average accuracy of 51%. In other words, only half the time the correct group is chosen. This sounds worse than it is. Wrong results often border the right group, meaning the real result isn't too far off.

## What About Risks?

Our tool merely offers a prediction. We don't want animals to be euthanised simply because they're less likely to be adopted than others.

To avoid this we will only be deploying to registered no-kill shelters that euthanise solely for humane reasons.



## Accessibility

As of right now we're working hard to offer an API solution. In the short term you will require a software engineer to make a connection and read the results.

Don't worry if this sounds too complicated! We aim to create an online portal that gives you easy access to the results of your animals in the near future. You'll fill in the characteristics and promptly receive a prediction. An overview will show you all the animals you previously looked at.

By telling us whether the predictions you received were correct we'll be able to continuously expand and improve our tool.

## Future Plans

There's a long road ahead of us. We eventually want to offer larger organisations the option of having a custom tool build just for them. By looking at their previous adoptions this personalised tool will offer greater insights and more accurate results.

We'll also offer you the possibility of uploading images and descriptions of animals. This will not only give a more precise outcome, but will also offer insights into what should and should not be listed in online animal descriptions.