



(<https://christophm.github.io/interpretable-ml-book/shapley.html>)

Imagine we're playing a game about selling three houses, and each one has some special things. These special things help decide how much each house costs. Let's look at the things that change the price:

1. **Trees:** Some houses are near trees, which might make them worth more money.
2. **Floor:** Some houses are on the first floor, and one is on the second floor.
3. **Cat:** Some houses allow a cat, and some don't.

Shapley values are a magical tool that helps you understand which of these features are more important.

Here's how it works:

- Imagine building each house, adding one thing at a time, like adding trees, deciding on the floor, and then choosing if a cat is allowed. Each time we add something, we see if the price goes up or down.
- Shapley values tell us how much each thing (like trees or having a cat) is **helping** to make the house more expensive or less expensive.

If trees add a lot of money to the house price, they get more points. If allowing a cat doesn't change the price much, it gets fewer points. Shapley values are just a way to give each thing a fair score based on how much it helps with the final price.

So, if you want to play a game with your friends to sell your house at a higher price, you can use the Shapley values tool to find the features with the highest scores. Then, you can try to get the best house setup with these features, so you can sell it for more money!