

SEARCH



RESOURCES

CONCEPTS

- ✓ 17. Screencast: Multicollinearity & ...
- ✓ 18. Video: Multicollinearity & VIFs
- ✓ 19. Notebook + Quiz: Multicollinea...
- ✓ 20. Video: Higher Order Terms
- ✓ 21. Text: Higher Order Terms
- ✓ 22. Screencast: How to Add Highe...
- ✓ 23. Video: Interpreting Interactions
- ✓ 24. Text: Interpreting Interactions
- ✓ 25. Notebook + Quiz: Interpreting ...
- ✓ 26. Video: Recap
- ✓ 27. Text: Recap



Mentor Help

Ask a mentor on our Q&amp;A platform



Peer Chat 2

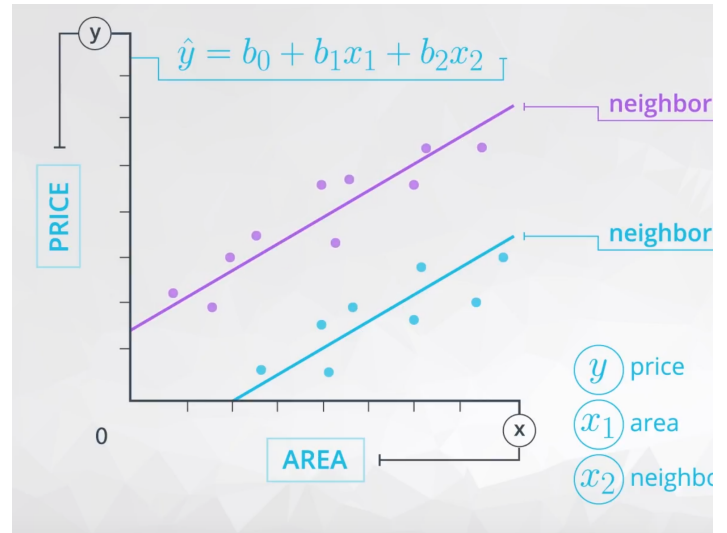
Chat with peers and alumni

 $x_1 x_2$ 

The example from the previous video used **area** ( $x_1$ ) and the **neighborhood** ( $x_2$  or **B**) to predict the home **price** ( $y$ ). At the top of the screen in the video, you might see the equation for a linear model using these variables as:

$$\hat{y} = b_0 + b_1 x_1 + b_2 x_2$$

This example does not involve an interaction term, and this model is appropriate if the relationship between the variables looks like that in the plot below.



where  $b_1$  is the way we estimate the relationship between **area** and **price**, which we believe to be the same regardless of the neighborhood.

Then  $b_2$  is the difference in price depending on which neighborhood you are in, represented by the vertical distance between the two lines here:

