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MITx: 6.86x

Machine Learning with Python-From Linear Models to Deep Learning

<u>Help</u>

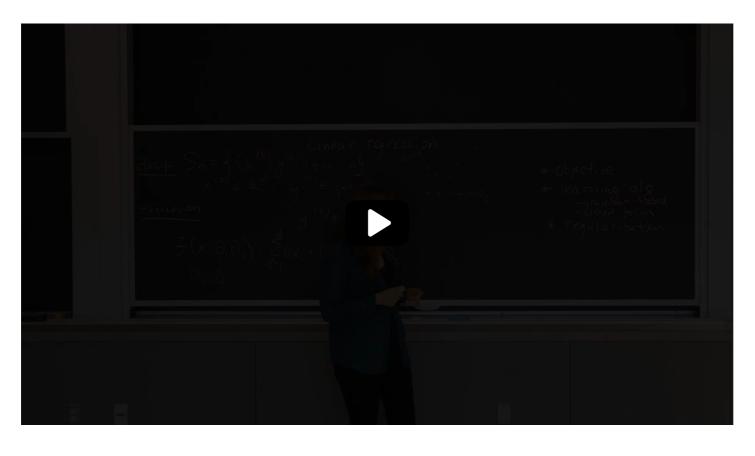


<u>sandipan_dey</u>

Unit 2 Nonlinear Classification, Linear regression, Collaborative <u>Course</u> > <u>Filtering (2 weeks)</u>

> <u>Lecture 5. Linear Regression</u> > 3. Introduction

3. Introduction Introduction; Lecture Overview



to overfeed to this training data, you are again bringing yourself to the bad spot. So there is a mechanism that would enable us to do better generalization to be more robust when we don't have enough training data or when the data is noisy.

So we'll introduce this regularization in the context of linear regression,

and you will see it in other parts of the class as well.

11:22 / 11:22

▶ Speed 1.50x

X

CC

End of transcript. Skip to the start.

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Introduction Exercise

1/1 point (graded)

Which of the following is true about linear regression? Choose all those apply.

- lacksquare The observed value, y, is a real number. i.e. $y \in \mathbb{R}$
- lacksquare The predictor f is a linear function of the feature vectors. i.e. $f(x) = \sum_{i=1}^d heta_i x_i + heta_0$ 🗸
- \Box The observed value y is a discrete integer.
- \square The observed value y is a category, as in classification.



Solution:

By definition, in regression, the observed value y is a real number(continuous), unlike y is discrete in classification. The predictor f, which tries to emulate/predict y is defined as $f(x) = \sum_{i=1}^d \theta_i x_i + \theta_0$.

Submit

You have used 2 of 3 attempts

1 Answers are displayed within the problem

Discussion

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predictor linear in the feature vectors?
Shouldn't it be sufficient for the predictor being linear in the parameters to be linear regression?

Thank Goodness

20

Finally we have prof. Barzilay and THE RED PLAYER			•
 Does it sound like there was a previous lecture? Prof. Barzilay refers to the example of stock picking, and a few Community TA 	other things, as though they were in previous lectures	. Most are clear from context, and some were covered in	1
Subtitle? I want to ask where I can find the subtitle?			2
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