

Linear Models

Puntos totales 100/120 ?

Se ha registrado el correo del encuestado (0224969@up.edu.mx) al enviar este formulario.

✓ It is a linear model to predict a numerical output (regression) based on numerical inputs * 10/10

- ☒ Linear regression ✓
- ☐ Logistic regression
- ☐ Support vector machines

✓ Feature normalization consists in * 10/10

- ☒ Transform the variables for having a range based on the normal distribution $x = (x - \text{avr}(x)) / \text{std}(x)$ ✓
- ☐ Using only the values of variables in the interquartile range
- ☐ Using only the variables with a correlation higher than 0.7

✗ The technique of classification one vs all consists in * 0/10

- ☐ One classifier is fitted by class. If we have 3 classes, we have 3 classifiers
- ☒ Only one classifier is created but each iteration the classifier learns a specific class ✗

Respuesta correcta

- ☒ One classifier is fitted by class. If we have 3 classes, we have 3 classifiers



Nombre completo *

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✓ Which one of the following techniques calculate a hyperplane that divides the classes by maximizing the margin between the classes * 10/10

- ☐ Linear regression
- ☐ Logistic regression
- ☒ Support vector machines



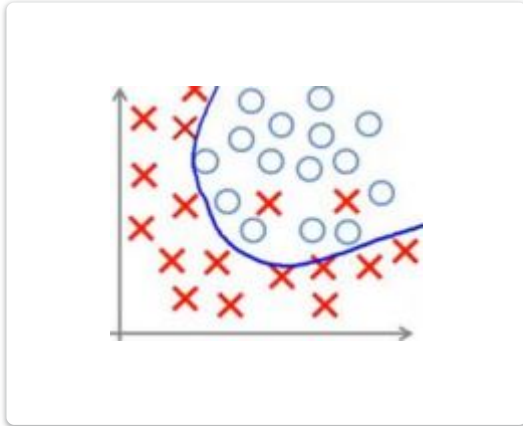
✓ The kernel trick allows to * 10/10

- ☐ Incorporate polynomial functions to linear models
- ☒ Transform the data from an vectorial space to another using similarities among samples
- ☐ Reduce overfitting of models

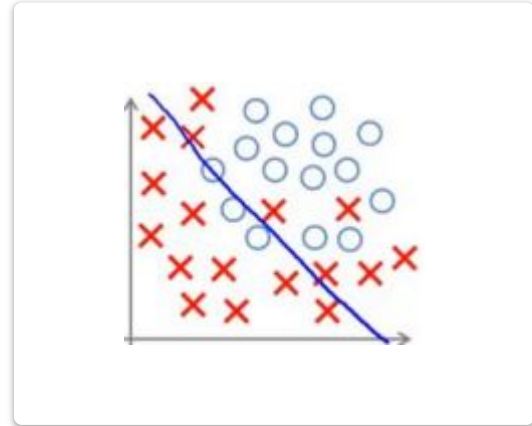


✓ Which image represents underfitting *

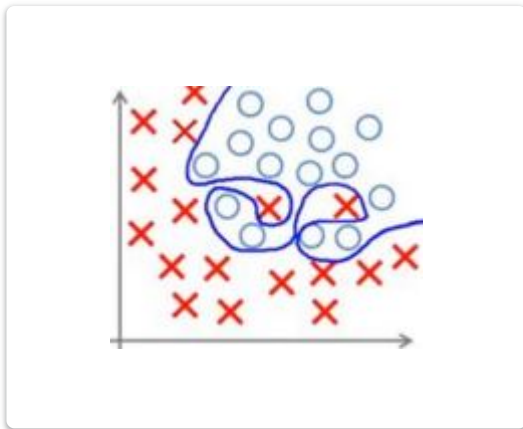
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☐ Opción 1



☒ Opción 2

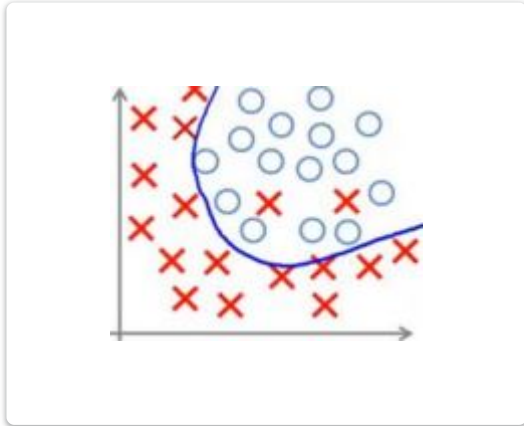


☐ Opción 3

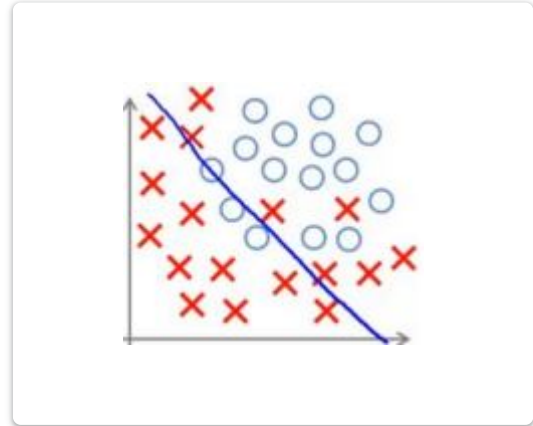


✓ Which image represents overfitting *

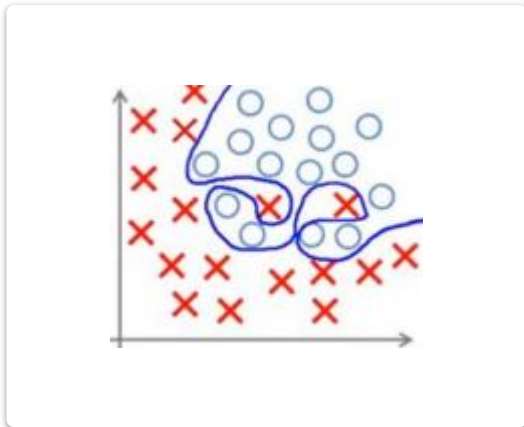
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☐ Opción 1



☐ Opción 2



☒ Opción 3



✓ For fitting a non linear model you need to transform the features *

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☒ Before fitting the model

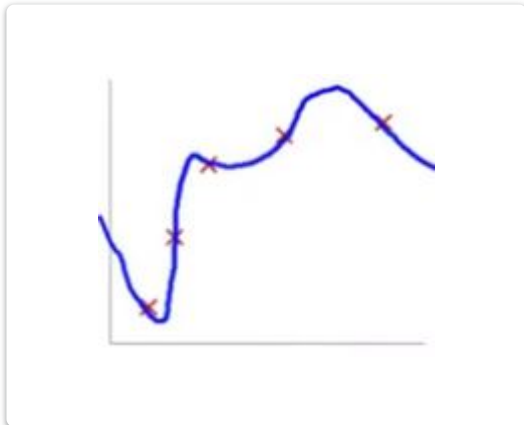


☐ After fitting the model

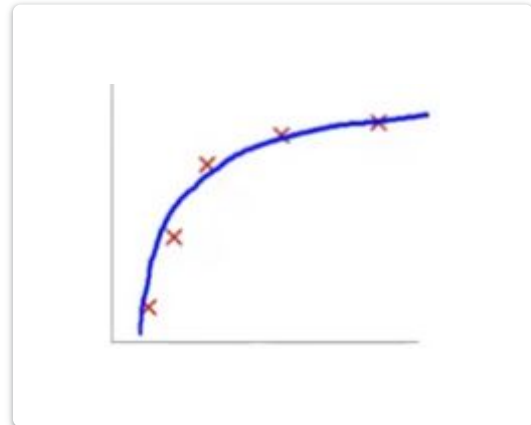


✓ Which image represents overfitting *

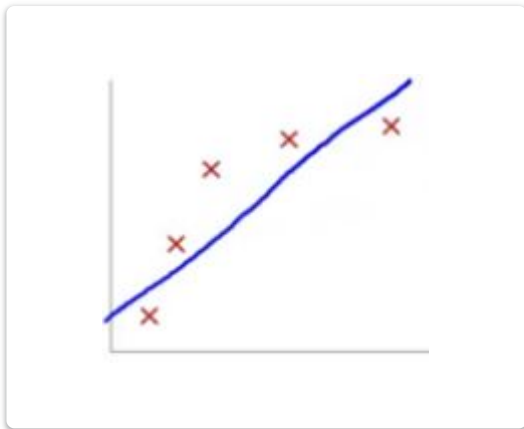
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☒ Opción 1



☐ Opción 2



☐ Opción 3

✓ The goal of the second term (red) in the following equation is *

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$$\min_{\theta} J(\theta) = \frac{1}{2} \sum_{i=1}^m \text{Cost}(h(x^{(i)}), y^{(i)}) + \lambda \sum_{j=1}^n \theta_j^2$$

☐ Minimize the error of predictions

☒ To reduce overfitting



✗ It is a linear model to predict a categorical output (classification) based on numerical inputs *

0/10

- ☐ Linear regression
- ☒ Logistic regression
- ☐ Support vector machines

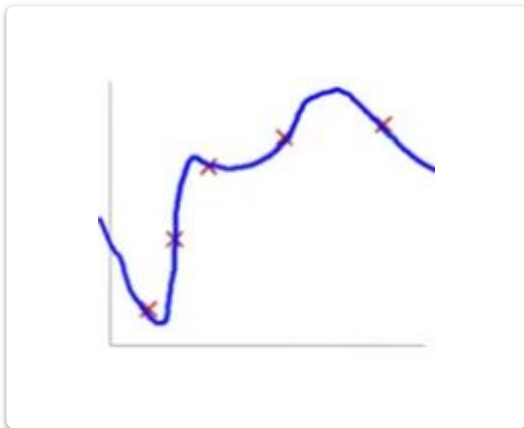


Respuesta correcta

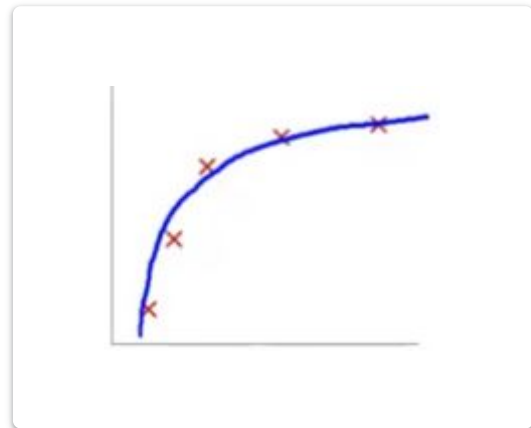
- ☒ Logistic regression
- ☒ Support vector machines

✓ Which image represents underfitting *

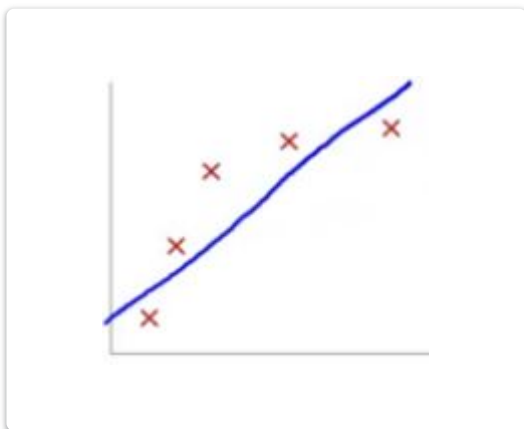
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☐ Opción 1



☐ Opción 2



☒ Opción 3



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