

Introduction to Data Science

Assignment no. 03



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Question no. 02

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# CSC461 - Assignment no. 03 - Introduction to Machine Learning
# Mashail Jannat
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# Logistic Regression, Support Vector Machines, Multilayer Perceptron
algorithms on "gender-prediction.csv" dataset
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(b)

By increasing train set and decreasing test, there is a decrease in the number of instances incorrectly predicted. This is because the model was provided with more data to train with which is increasing its accuracy.

(c)

The attributes that are most powerful to the prediction task for gender are "beard" and "scarf". It depends on the dataset what attribute is the most powerful for the desired prediction and in this case beard and scarf are the most powerful since beard shows the gender as male regardless of other attributes and scarf shows the gender as female regardless of other attributes.

(d)

Doing so increased the number of instances incorrectly predicted decreasing the accuracy in prediction.

Question no. 04

height	weight	beard	hair_length	shoe_size	scarf	eye_color	gender
70	167	no	medium	38	no	black	female
68	140	no	long	39	yes	brown	male
72	155	yes	short	42	no	green	male
65	176	yes	short	45	no	black	male
67	181	yes	medium	41	no	green	male
71	136	no	long	35	yes	brown	female
72	174	no	short	39	yes	brown	female
72	138	no	medium	39	no	black	female
75	123	no	medium	38	no	brown	female
64	139	yes	short	42	no	blue	male