Machine Learning / Initialize Model / Classification

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What is Classification?

Classification algorithms predict the class or category for a single instance of data. For example, email filters use binary classification to determine if an email is spam. There are two forms of classification tasks. The first is binary classification, where the goal is to predict one of two outcomes. The other is multiclass classification, where the goal is to predict one of many outcomes. The output of a classification algorithm is called a classifier, which can be used to predict the label of a new (unlabeled) instance.

Wondering how to select a classification algorithm? See these topics:

- Machine learning algorithm cheat sheet for Azure ML (https://azure.microsoft.com/en-us/documentation/articles/machine-learning-algorithm-cheat-sheet/)

  Provides a graphical decision chart to guide you through the selection process

- How to choose Azure Machine Learning algorithms for clustering, classification, or regression (https://azure.microsoft.com/documentation/articles/machine-learning-algorithm-choice/)

  Explains in greater detail the different types of machine learning algorithms and how they're used

List of Modules

The category Initialize Classification Model includes the following modules:

Module	Description
Multiclass Decision Forest (https://msdn.microsoft.com/en-us/library/azure/dn906015.aspx)	Creates a multiclass classification model using the decision forest algorithm
Multiclass Decision Jungle (https://msdn.microsoft.com/en-us/library/azure/dn905963.aspx)	Creates a multiclass classification model using the decision jungle algorithm
	Creates a multiclass logistic regression classification model

Multiclass Logistic Regression (https://msdn.microsoft.com/en-us/library/azure/dn905853.aspx)	
Multiclass Neural Network (https://msdn.microsoft.com/en-us/library/azure/dn906030.aspx)	Creates a multiclass classification model using a neural network algorithm
One-vs-All Multiclass (https://msdn.microsoft.com/en-us/library/azure/dn905887.aspx)	Creates a multiclass classification model from an ensemble of binary classification models
Two-Class Averaged Perceptron (https://msdn.microsoft.com/en-us/library/azure/dn906036.aspx)	Creates an averaged perceptron binary classification model
Two-Class Bayes Point Machine (https://msdn.microsoft.com/en-us/library/azure/dn905930.aspx)	Creates a Bayes point machine binary classification model
Two-Class Boosted Decision Tree (https://msdn.microsoft.com/en-us/library/azure/dn906025.aspx)	Creates a binary classifier using a boosted decision tree algorithm
Two-Class Decision Forest (https://msdn.microsoft.com/en-us/library/azure/dn906008.aspx)	Creates a two-class classification model using the decision forest algorithm
Two-Class Decision Jungle (https://msdn.microsoft.com/en-us/library/azure/dn905976.aspx)	Creates a two-class classification model using the decision jungle algorithm
Two-Class Logistic Regression (https://msdn.microsoft.com/en-us/library/azure/dn905994.aspx)	Creates a two-class logistic regression model
Two-Class Neural Network (https://msdn.microsoft.com/en-us/library/azure/dn905947.aspx)	Creates a binary classifier using a neural network algorithm
Two-Class Support Vector Machine (https://msdn.microsoft.com/en-us/library/azure/dn905835.aspx)	Creates a binary classification model using the Support Vector Machine algorithm
Two-Class Locally Deep Support Vector Machine (https://msdn.microsoft.com/en-us/library/azure/dn913070.aspx)	Creates a binary classification model using the locally deep Support Vector Machine algorithm

See Also

Machine Learning / Initialize Model / Regression (https://msdn.microsoft.com/en-us/library/azure/dn905922.aspx)
Machine Learning / Initialize Model / Clustering (https://msdn.microsoft.com/en-us/library/azure/dn905908.aspx)
Text Analytics (https://msdn.microsoft.com/en-us/library/azure/dn905886.aspx)
OpenCV Library Modules (https://msdn.microsoft.com/en-us/library/azure/dn905946.aspx)
A-Z List of Machine Learning Studio Modules (https://msdn.microsoft.com/en-us/library/azure/dn906033.aspx)