Gender Classification using WIKI IMDB dataset

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➢ CNN: -

what is CNN…?

 is a feed forward neural network that is generally used to analyze visual images by processing data with grid like topology. A CNN is also known as a "ConvNet"
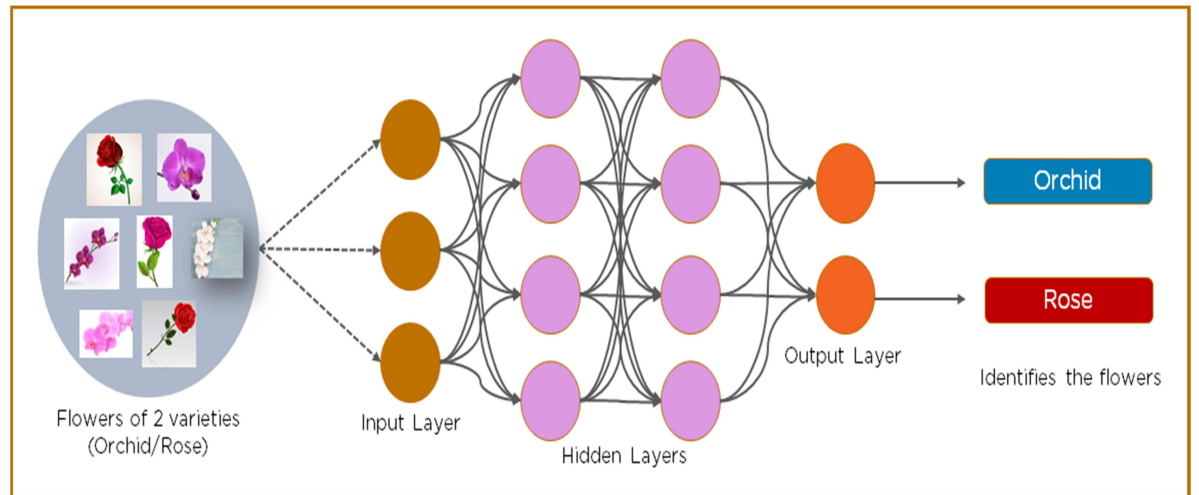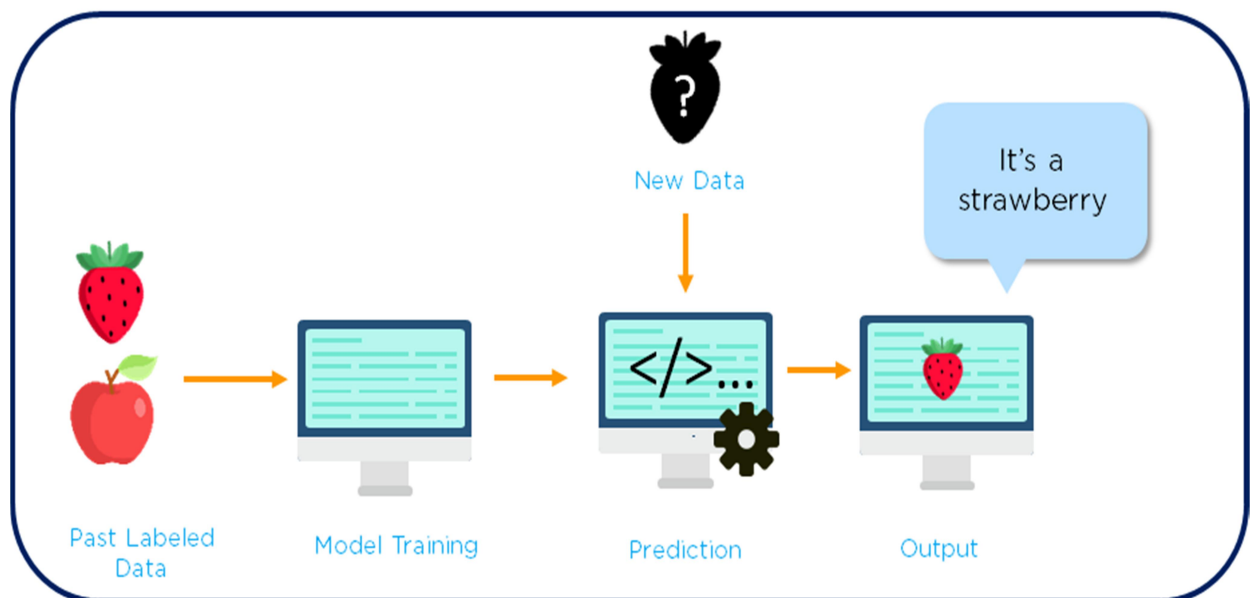

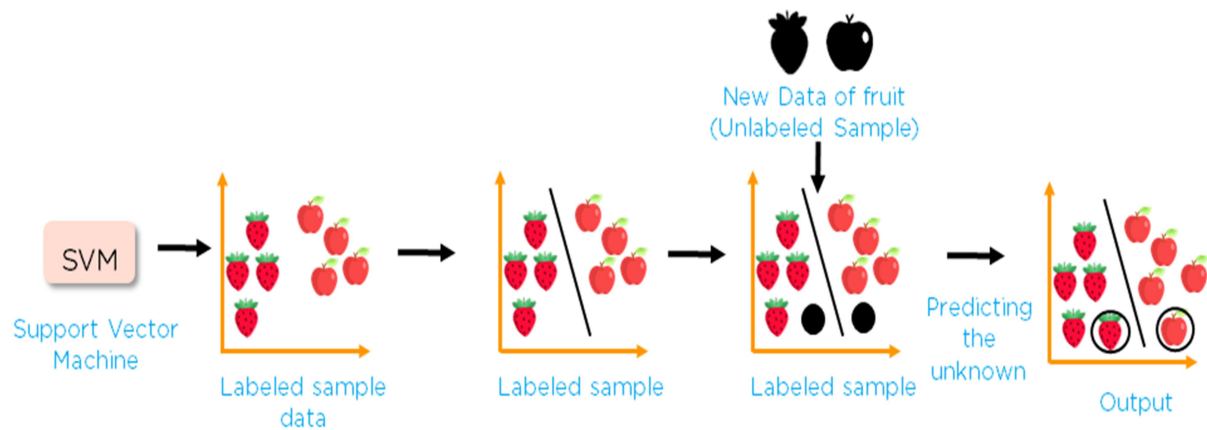In CNN, every image is represented in the form of arrays of pixel values.

Real Image of the digit 8 | Represented in the form of an array | Digit 8 represented in the form of pixels of 0's and 1's
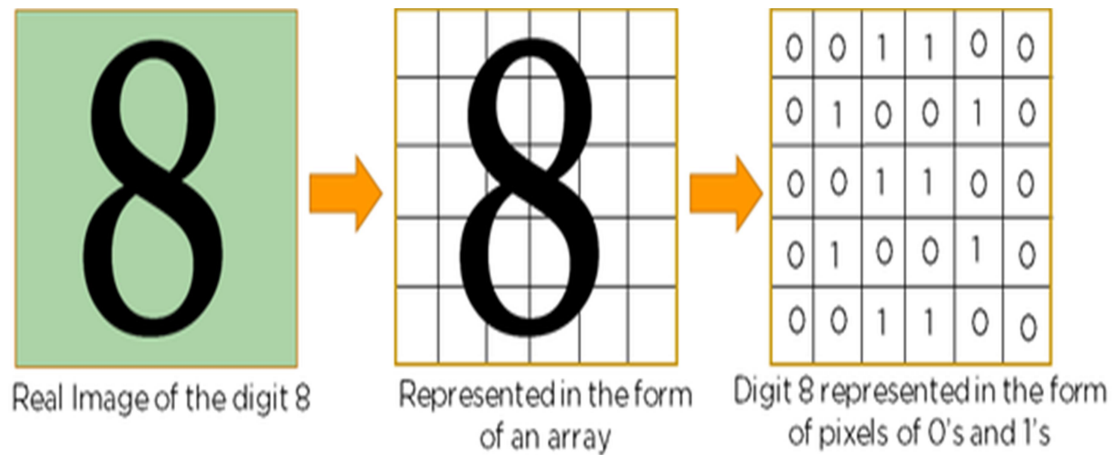
➢ *SVM: -*

What is SVM…?

In machine learning, support vector machines are supervised learning model SVM is an algorithm that analyze data used for classification and regression analysis.

SVM is a supervised learning method that looks at data and sorts it into one of the two categories

P.O.C	CNN	SVM
Strengths	• CNNs are non-linear. • CNNs work well with data having spatially recurring patterns. Images, speech. • CNN classifiers feature vectors are useful in many other problems. Very good representation. • Adding more layer and you increase model complexity. • They used to need a lot of training data	• SVM are linear classifiers. • SVMs with kernels are non-linearity classifiers. • Not much restrictions on what kind of data it will work with. • No scope of representative's station learning. • Effective in high dimensional spaces • Still effective in cases where number of dimensions is greater than the number of samples • Uses a subset of training points in the decision function (called support vectors), so it is also memory efficient
weaknesses	• High computational cost. • If you don't have a good GPU, they are quite slow to train (for complex tasks)	• No way to increase model complexity. • If the number of features is much greater than the number

		of samples, avoid over-fitting in choosing Kernel functions and regularization term is crucial
		• SVMs do not directly provide probability estimates, these are calculated using an expensive five-fold cross-validation