

Supervised Machine Learning for Text Classification

Supervised Machine Learning for Text Classification



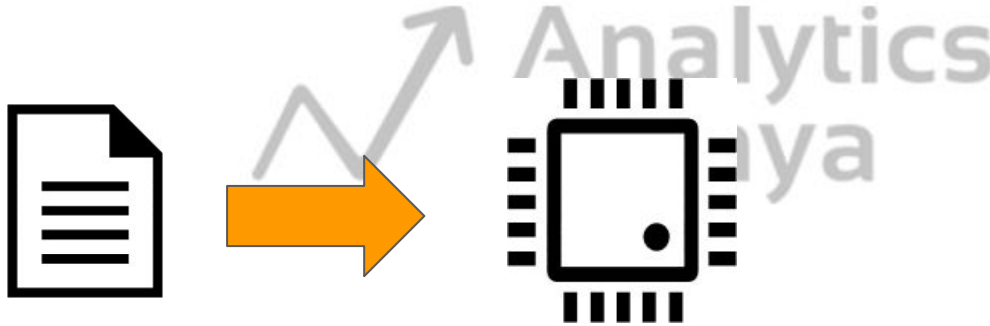
Supervised Machine Learning for Text Classification



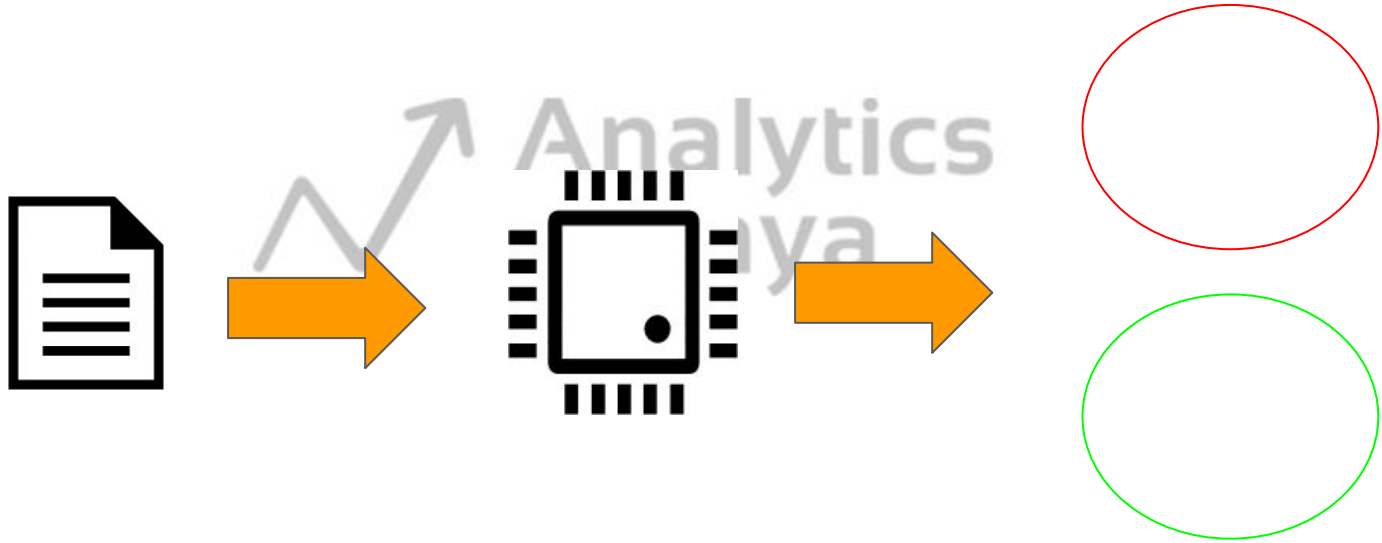
Supervised Machine Learning for Text Classification



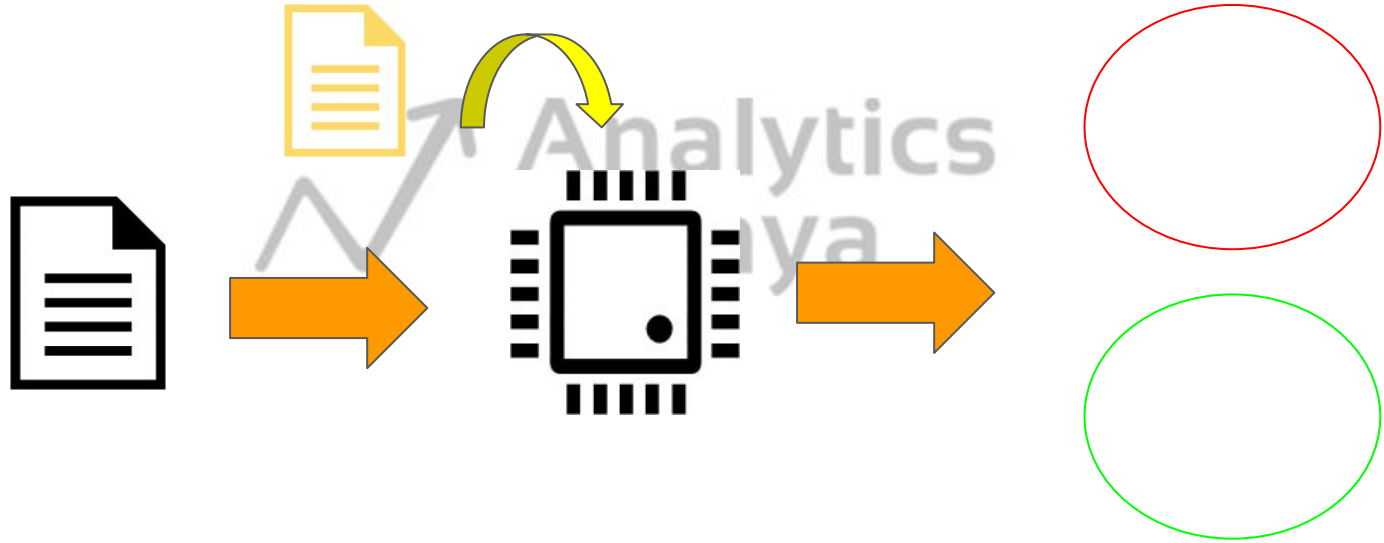
Supervised Machine Learning for Text Classification



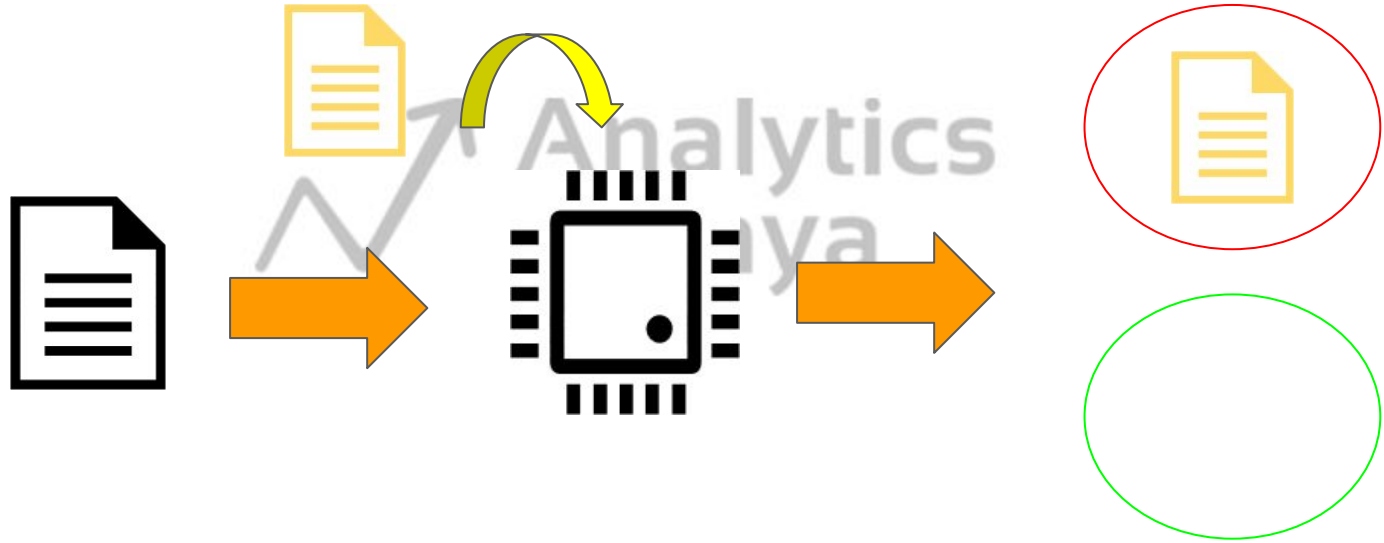
Supervised Machine Learning for Text Classification



Supervised Machine Learning for Text Classification



Supervised Machine Learning for Text Classification



Supervised Machine Learning for Text Classification



Supervised Machine Learning for Text Classification



Supervised Machine Learning for Text Classification

Review 1: The food is bad and the service is horrible. Would not recommend anyone to go there. Not that great of an experience.

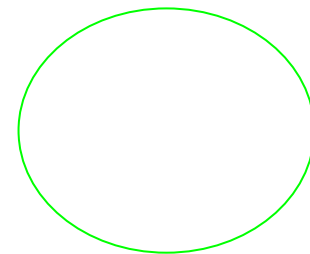
Review 2: Love the delicious food served here and the service is also great. Not bad at all!



Supervised Machine Learning for Text Classification

Review 1: The food is bad and the service is horrible. Would not recommend anyone to go there. Not that great of an experience.

Review 2: Love the delicious food served here and the service is also great. Not bad at all!

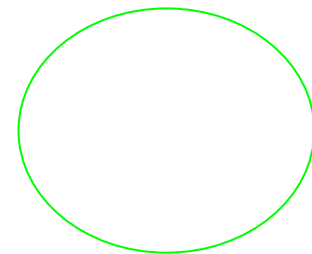
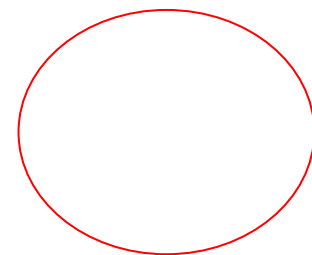


Supervised Machine Learning for Text Classification

Review 1: The food is bad and the service is horrible. Would not recommend anyone to go there. Not that great of an experience.

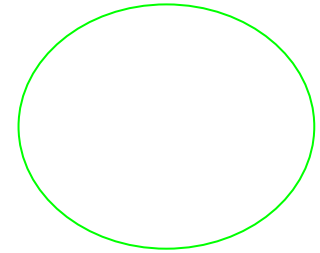
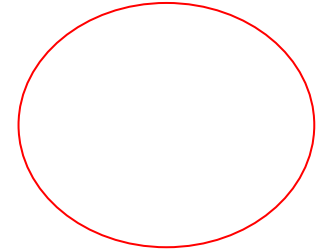
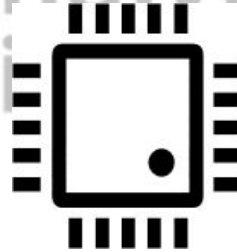
Review 2: Love the delicious food served here and the service is also great. Not bad at all!

 Analytics Vidhya



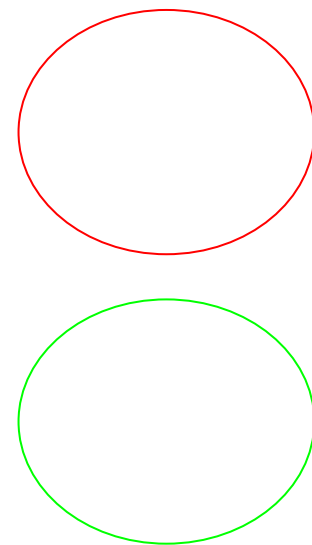
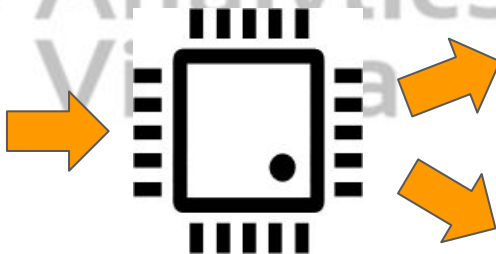
Supervised Machine Learning for Text Classification

Review	Word count	Average word length	Class
1	22	5.7	0
2	16	5.1	1



Supervised Machine Learning for Text Classification

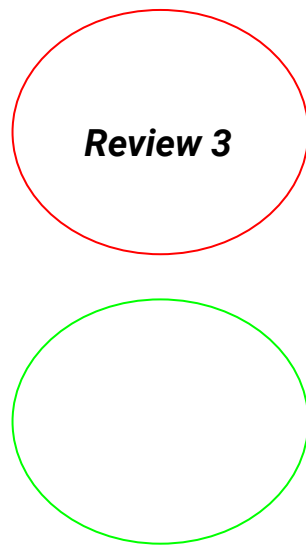
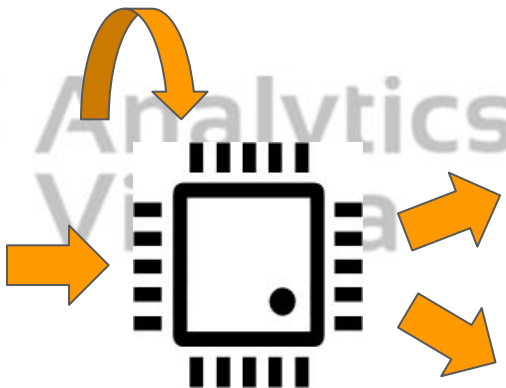
Review	Word count	Average word length	Class
1	22	5.7	0
2	16	5.1	1



Supervised Machine Learning for Text Classification

Review	Word count	Average word length
3	5	3.2

Review	Word count	Average word length	Class
1	22	5.7	0
2	16	5.1	1



Supervised Machine Learning Algorithms

- Naive Bayes



Supervised Machine Learning Algorithms

- Naive Bayes
- Logistic Regression



Supervised Machine Learning Algorithms

- Naive Bayes
- Logistic Regression
- Support Vector Machines (SVM)



Supervised Machine Learning Algorithms

- Naive Bayes
- Logistic Regression
- Support Vector Machines (SVM)
- K-Nearest Neighbours

 Analytics
Vidhya



Thank You

Evaluation Metrics

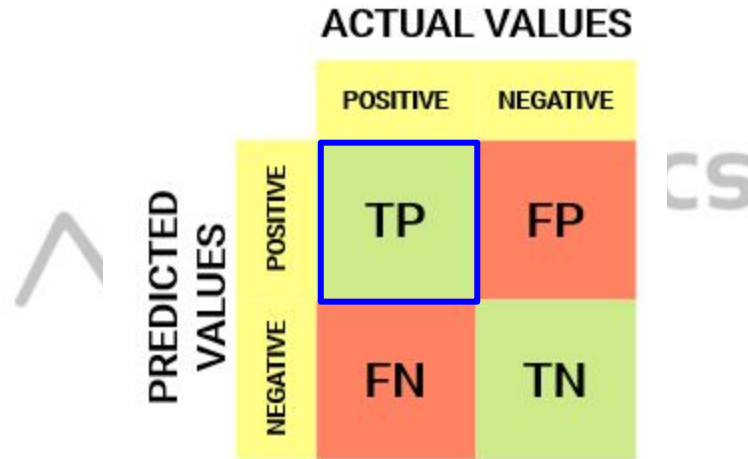


Evaluation Metrics

ACTUAL VALUES

		POSITIVE	NEGATIVE
PREDICTED VALUES	POSITIVE	TP	FP
	NEGATIVE	FN	TN

Evaluation Metrics



		ACTUAL VALUES	
		POSITIVE	NEGATIVE
PREDICTED VALUES	POSITIVE	TP	FP
	NEGATIVE	FN	TN

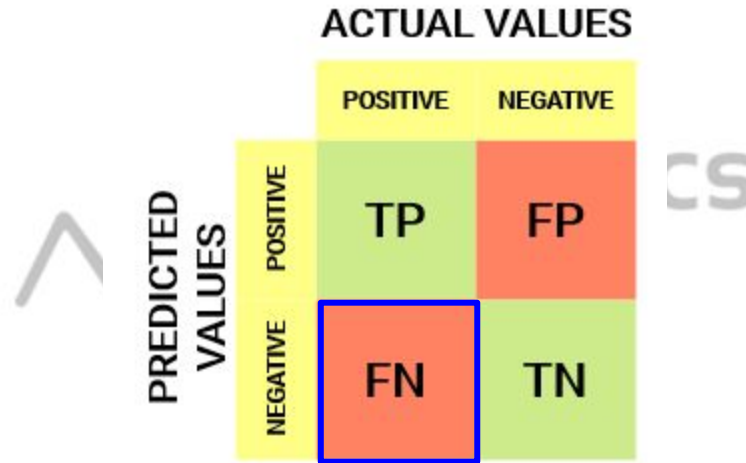
Evaluation Metrics

ACTUAL VALUES			
	POSITIVE	NEGATIVE	
PREDICTED VALUES	POSITIVE	TP	FP
	NEGATIVE	FN	TN

Evaluation Metrics

		ACTUAL VALUES	
		POSITIVE	NEGATIVE
PREDICTED VALUES	POSITIVE	TP	FP
	NEGATIVE	FN	TN

Evaluation Metrics



		ACTUAL VALUES	
		POSITIVE	NEGATIVE
PREDICTED VALUES	POSITIVE	TP	FP
	NEGATIVE	FN	TN

Evaluation Metrics

$$\text{Accuracy} = \frac{\text{TP} + \text{TN}}{\text{TP} + \text{TN} + \text{FP} + \text{FN}}$$

Evaluation Metrics

$$\text{Accuracy} = \frac{930 + 30}{930 + 30 + 30 + 10} = 0.96$$

Evaluation Metrics

$$\text{Precision} = \frac{\text{TP}}{\text{TP} + \text{FP}}$$

Evaluation Metrics

$$\text{Recall} = \frac{\text{TP}}{\text{TP} + \text{FN}}$$

Evaluation Metrics

$$\text{F1 score} = \frac{2 * \text{Precision} * \text{Recall}}{\text{Precision} + \text{Recall}}$$

Evaluation Metrics

$$\text{F1 score} = \frac{2 * \text{Precision} * \text{Recall}}{\text{Precision} + \text{Recall}}$$