Definition: The process of assigning predefined categories to text data based on its content, enabling automated organization and analysis.

Key points:

• Utilizes machine learning algorithms to improve accuracy and efficiency in categorizing large text datasets.

• Commonly applied in sentiment analysis, spam detection, and topic categorization.; 2. Language Models (LMs): - Definition: Statistical models that predict the likelihood of a sequence of words, enabling tasks such as text generation and completion.

1. Text Classification:

Definition: The process of assigning predefined categories to text documents based on their content using machine learning algorithms.

Key points:

• Commonly used in spam detection, sentiment analysis, and topic categorization.

• Involves feature extraction and model training on labeled datasets.; None; None; 6. Few-shot Learning: - Definition: A machine learning paradigm where the model learns to perform tasks with very few training examples.

1. Text Classification:

Definition: The process of categorizing text into predefined classes based on its content, using algorithms to analyze and identify patterns in the text.

Key points:

• Commonly used in spam detection, sentiment analysis, and topic categorization.

• Techniques include supervised learning with labeled data and unsupervised learning for clustering.; None; None; None; None; None; None; None; None; None; None; None; None

1. Text Classification:

Definition: A machine learning task that assigns predefined categories to text documents based on their content, facilitating information retrieval and organization.

Key points:

• Used in spam detection, sentiment analysis, and topic categorization to automate content management.

• Common algorithms include Naive Bayes, Support Vector Machines, and neural networks.; None; None; None; None; None; None; None; None; None; 12. Hyperparameter Tuning: - Definition: The process of optimizing the parameters that govern the training process of a machine learning model to improve its performance.

1. Text Classification:

Definition: The process of assigning predefined categories to text documents based on their content using various algorithms and techniques.

Key points:

• Common applications include sentiment analysis, spam detection, and topic classification.

• Involves supervised learning where labeled data is used to train classifiers.; None; None; None; None; None; None; None; None; None; None; None; None

1. Text Classification:

Definition: The process of categorizing text into predefined classes based on its content, often using machine learning algorithms.

Key points:

• Commonly used in spam detection, sentiment analysis, and topic categorization.

• Involves creating feature vectors from text, such as Bag-of-Words (BoW).; None; None; None; None; None; None; None; None; None; None; None

1. Text Classification:

Definition: The process of assigning predefined categories or labels to text based on its content using machine learning techniques.

Key points:

• Commonly used for sentiment analysis, spam detection, and topic categorization.

• Involves feature extraction, model training, and evaluation using labeled datasets.; None; None; None; None; None; None; None; None; None; None

1. Text Classification:

Definition: The process of categorizing text into predefined classes or labels based on its content, often using machine learning algorithms.

Key points:

• Commonly used in spam detection, sentiment analysis, and topic categorization.

• Utilizes features like word frequency, n-grams, and embeddings for classification.; None; None; None; None; None; None; None; None; 15. Hyperparameter Tuning: - Definition: The process of optimizing the parameters that govern the training of a machine learning model to improve its performance.

1. Text Classification:

Definition: The process of categorizing text into predefined classes or labels using algorithms that analyze and interpret the content of the text.

Key points:

• Commonly used in spam detection, sentiment analysis, and topic categorization in natural language processing.

• Algorithms like Naive Bayes, SVM, and neural networks are frequently employed for classification tasks.; None; None; None; None; None; None; None; None; None; None; None; None

1. Text Classification:

Definition: The process of categorizing text into predefined classes or labels based on its content, often using machine learning algorithms.

Key points:

• Commonly used in spam detection, sentiment analysis, and topic categorization.

• Utilizes features derived from text such as word frequency or embeddings for classification.; None; None; None; None; None; None; None; None; None; None; None; None