Task 2: advanced methods in text classification.
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advanced methods in text classification

Today, more and more people are turning to the Deep Learning model based on the contextual and linguistic definition of a distributed semantic model in a data warehouse. Deep Learning started with Logistic regression Deep Learning, or Neural Network, a new wave of machine learning technology in solving NLP problems. This model can take advantage of the multidimensional semantic nature of words to categorize texts[1]. Training Deep Learning Models allow Word embedding to capture the semantic characteristics of each word by learning from the corpus. and is the basis for creating a new text classifier nowadays
Deep Averaging Network is a baseline model for understanding and developing other neural model architectures that will be seen in future chapters such as recurrent neural network and sequence-to-sequence models. Making text classification Because it's small, it's not difficult to train, and it combines the power of word embedding well[5].

relevant fields for text classification:
text classification can be applied to many applications and many field.

- **Information Retrieval** Computer retrieval technology has made it easier for people to access information. Although the volume of documents, images, emails, news, articles is always multiplying nowadays, Search has become the main function of many websites and applicaitons.
- **Sentiment Analysis** Analysis of emotions expressed through language This technology is very popular because of the feedback information. Can convert values to applications and insights to compose and guide decision making.
- **Recommender Systems** are systems that recommend information, products, or people, hereinafter referred to as objects, to the users of the system based on learning assumptions about preferences or needs.
- **Knowledge Management** also known as KM, is a tool used to achieve at least three goals simultaneously: achieve human development goals and achieve the organization's development goals to become a learning organization by managing to discover knowledge The skill that is hidden in people finds a way out.
- **Document Summarization** is to shorten the contents of a document. It retains the same meaning as the original document, but doing Document Summarization by hand is a rather time consuming and labor intensive task. The automated model has attracted the attention of researchers today. Tasks that will take advantage of Document Summarization, such as text classification, question answering, and news summarization, etc[6].

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