Sentiment Analysis on movie reviews

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AGENDA

What is Sentiment Analysis ?

Process of analyzing online pieces of writing to determine the emotional tone they carry, whether they're positive, negative, or neutral.

In simple words, sentiment analysis helps to find the author's attitude towards a topic.

Importance of Sentiment Analysis

1 Get a better understanding of how your customers feel about your brand

2 Gain insights that will help you improve your products and services

3 React quickly to negative sentiment and turn it around

4 Make your business more responsive to customer feedback

5 Monitor your brand's reputation in real-time

6 Keep your customers happy by always putting their feelings first

Objective → To perform sentiment analysis on these movie reviews, that is, to classify the sentiment of sentences

About the Dataset →

Dataset obtained from:

https://www.kaggle.com/competitions/sentiment-analysis-on-movie-reviews/data

train.tsv (156,060 rows, 4 columns) : contains the phrases and their associated sentiment labels and SentenceId to track which phrases belong to a single sentence.
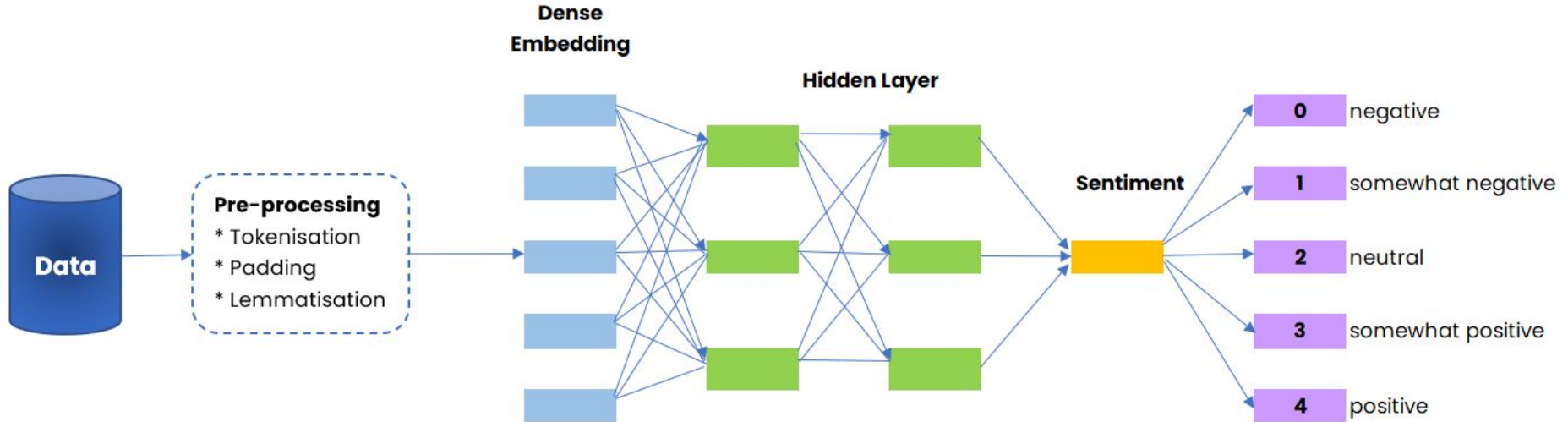
test.tsv (66,292 rows, 3 columns) : contains just phrases. To assign a sentiment label to each phrase.

The sentiment labels are:

0 - negative; 1 - somewhat negative; 2 - neutral; 3 - somewhat positive;
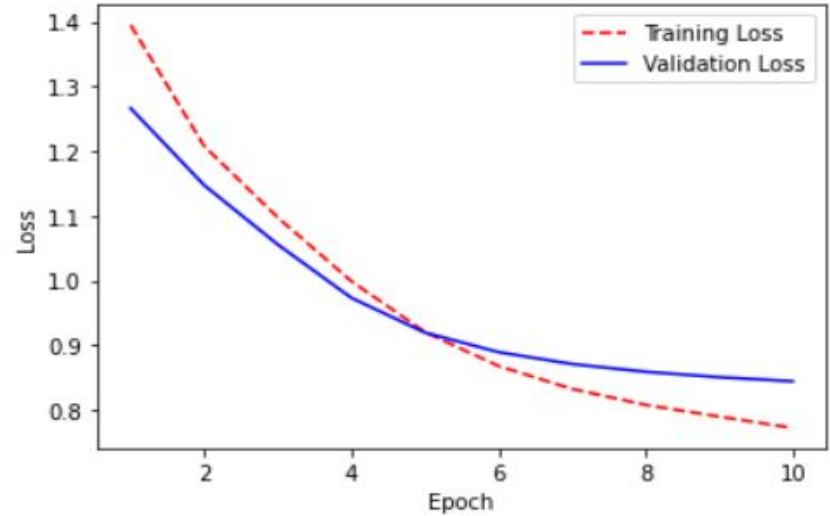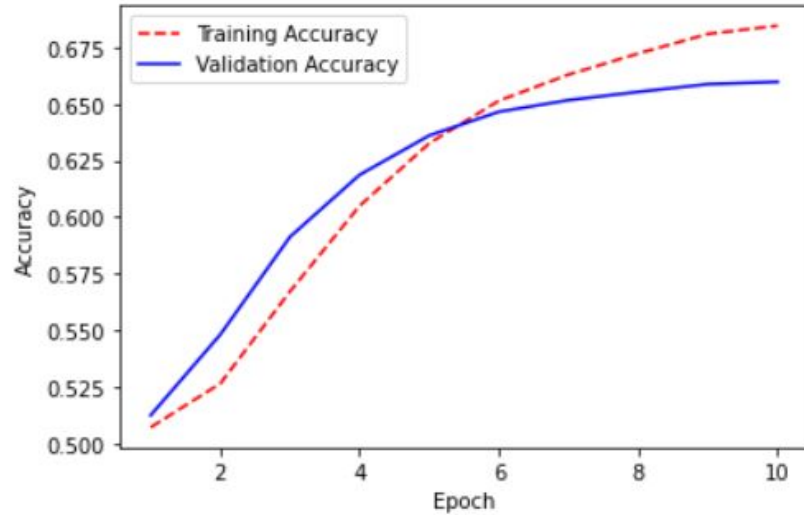
4 - positive

Deep Learning Workflow

Google Colab link:
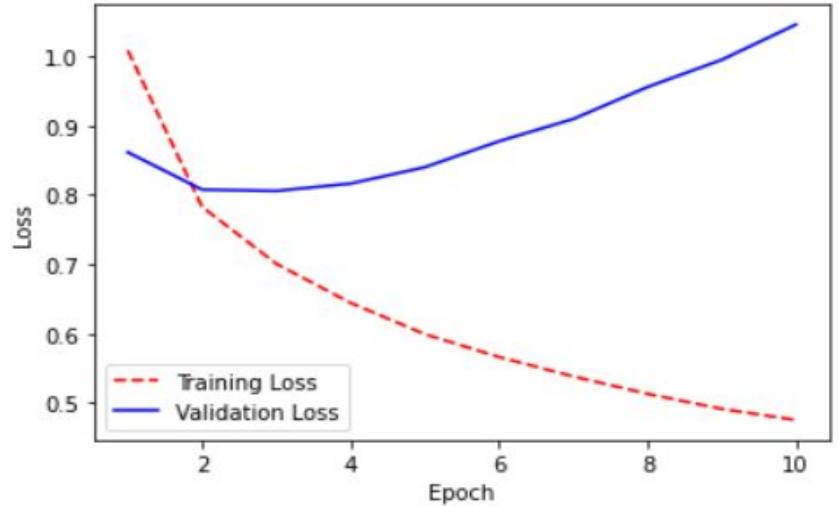https://colab.research.google.com/drive/1Ar3jwNvBQZKcJJdzy3oXZpXx7ynTwrZj?usp=sharing
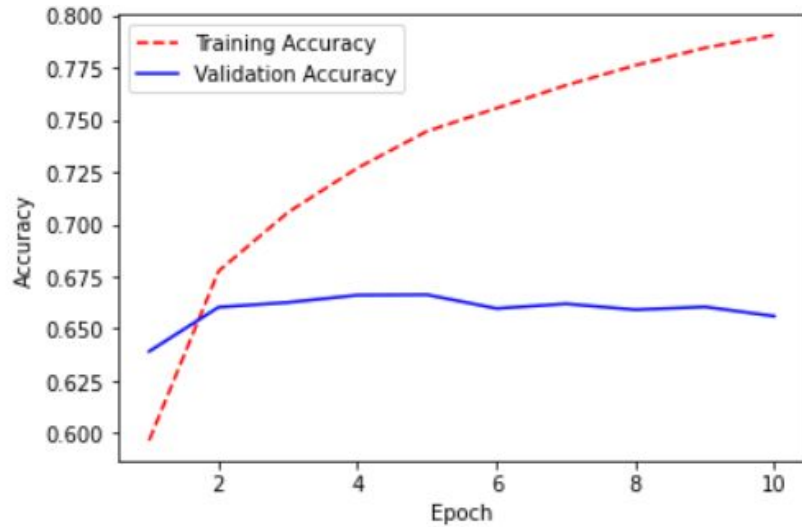
Results

Long Short-Term Memory (LSTM) model

Results - continued

Convolutional Neural Networks (CNN) model

Thank You!