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April 7, 2025

Image Classification with SVM

SVM is the acronym for Support Vector Machine. It is a sequence of instructions used to classify and regress in finding maximum hyperplane. It has the ability to process complex datasets so it's effective for detecting object and regaining back the image.

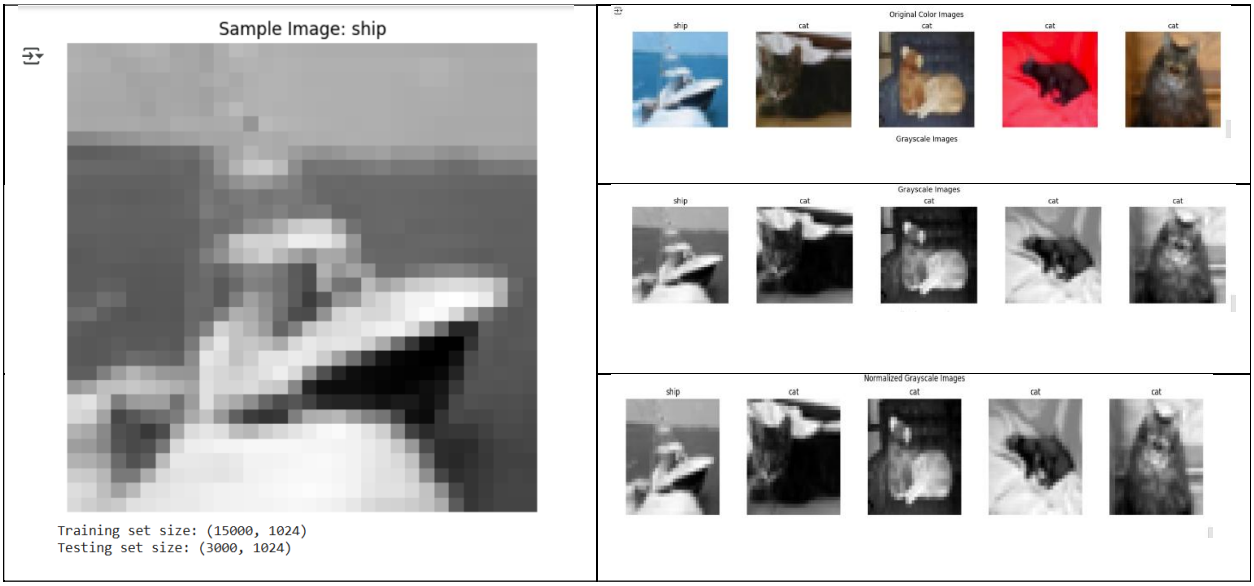
1. We installed libraries that provide pre-written code like the numpy, matplotlib, tensorflow, and scikit-learn.
2. Then we loaded and preprocessed the CIFAR-10 Dataset.
3. After everything needed was ready, we proceeded to train a machine learning model.

The important points in this process are the hyperplane, support vectors and the margin. We used SVM because it is productive in hyperspace. Its memory is also efficient. It is also flexible and adaptable.

4. The last step was the conclusion and evaluation.

There were some drawbacks like correcting the code errors but of course with the explanations and suggestions of Gemini, everything turned out successful. Since I'm a beginner in coding, it was so challenging for me but I found this journey so interesting that I was determined not to give up no matter how long it was going to take me.

Some of the Images that came to light were the following:



References:

AI Overview

0924Subset_Classical_ML_Image_Classification_with_CIFAR_10_Subset_of_Dataset.ipynb