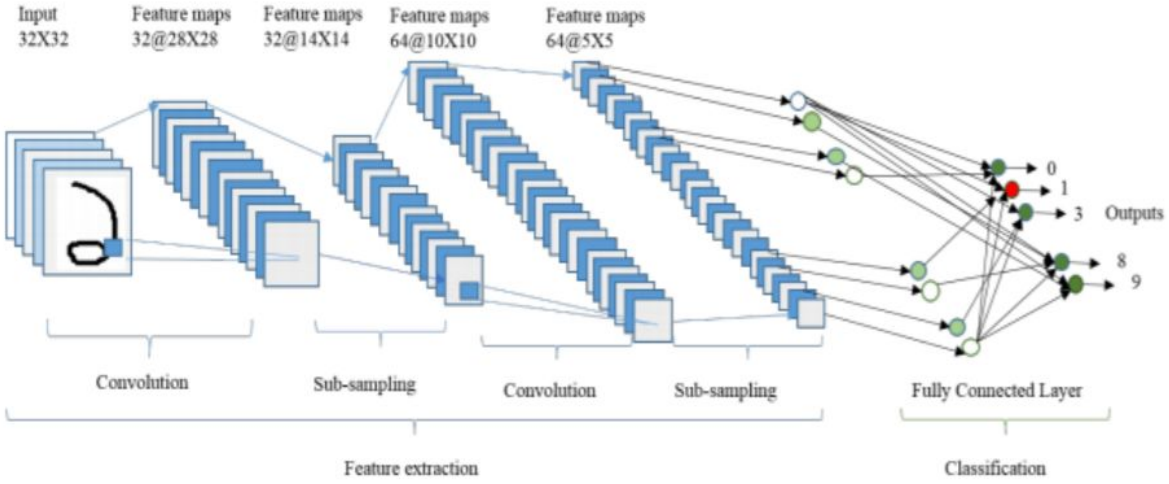

Alphabet Recognition

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Overview

We used an image DATASET of English alphabets from **Kaggle** and increased its size using data augmentation methods (e.g scale, rotate, flipping). Total images in the final dataset are about 1,500. Split the dataset into **training and testing** in a ratio of **4:1**. Then used Transfer Learning to train the pre-trained CNN model VGG16 on this dataset. link to the project's github repository.

Aim

1. Identify the English block alphabet from the testing image dataset.
2. Measure accuracy, recall, precision, and F1 score after training.

Architecture

- Custom built model similar to VGG-16 architecture with a dense output layer of 26 neurons (representing the 26 alphabets), Sequential Model is used here.
- Details of each layer used is given here.

Result

- Final accuracy on training dataset is **99.43** and testing dataset is **90.77.**
- Other details can be seen from here.