

PERSONAL CONTRIBUTION:

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During my project on deep learning, I was responsible for implementing several different methods and techniques for image classification in Python to improve the accuracy and efficiency of the image classification algorithm.

One of the main methods we utilized was convolutional neural networks (CNNs), which are a type of deep learning algorithm specifically designed for image processing. These networks work by passing an image through a series of layers, each of which applies a set of filters to the image to extract certain features. The final layer then classifies the image based on these features.

Starting with different ways of classification, I began firstly with DenseNet CNN and then Mobile net V2. (Feature selection can be done using techniques such as principal component analysis (PCA) or recursive feature elimination (RFE), which help to identify the most relevant features for the problem at hand.)

In addition to these techniques, I also worked extensively on data preprocessing. Specifically, I focused on analyzing X-ray images to determine the best way to preprocess them for our model. This involved performing operations such as normalization, contrast stretching, and histogram equalization to enhance the images and make them more suitable for classification.



Supervisor
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Comments & Signature (Reviewer 1)