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| Abstract |  |
| The economics of a nation is significantly influenced by agricultural productivity. Finding plant leaf disease is crucial since it significantly reduces agricultural productivity. Traditional detection methods like observing with the naked eye can lead to time-consuming and less accurate results. Farmers can’t always tell the difference between leaf diseases because sometimes they look the same. That’s why researchers have started using automation techniques to accurately detect the main diseases and their symptoms. This research proposed potato leaf disease detection using an image processing technique where the dataset was obtained online. In the proposed method, several image pre-processing techniques are used including data augmentation, gaussian smoothing, image normalization, dimensionality reduction and one hot encoding. CNN, KNN and SVC were used as classifiers. CNN gives the best result with an overall accuracy of 97%. Previous works with different classifiers had several limitations and using CNN the researchers didn’t get satisfying result. For this research a new hybrid model is introduced which can utilize the best of CNN classifier and it will be much more reliable and effective. | |