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| Title | Late and Early Blight Diseases Identification of Potatoes with a Light Weight Hybrid Transfer Learning Model | | |
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| Abstract |  |
| Potatoes are one of the world’s most important commodities, and leaf maladies such as early and late blight can substantially reduce their yield and quality. Hence, both farmers and researchers must prioritize quick and precise illness diagnosis. In our research, we propose a strategy based on transfer learning for classifying toxic and diseased potato leaf tissue. We specifically used our dataset of potato leaf photos to fine-tune the Mobile-Net model, which was a pre-trained convolutional neural network. To enhance the model’s functionality, we also added a few more layers. Our study found that, in comparison to other state-of-the-art methods, our methodology outperformed them all by achieving a multi-class classification accuracy of 99%. Our method can be used to detect and monitor potato leaf maladies in real-world situations, which could eventually contribute to enhancing potato productivity and food security. | |