

ResNet50-Based K-Fold Cross-Validation Framework

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ResNet-50

ResNet-50 is a 50-layer deep convolutional neural network using residual connections to address vanishing gradients, featuring bottleneck blocks for efficiency. It excels in image classification, object detection, and transfer learning, balancing depth and computational cost effectively.

Simple K-Fold

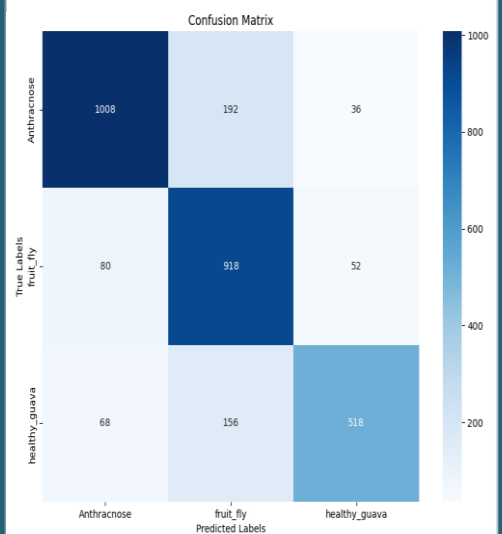
Simple K-Fold is a type of cross-validation technique used to evaluate the performance and robustness of a model. It divides the dataset randomly into K fold and operates in the following steps:

1. Data Splitting
2. Iterative Training and Validation
3. Aggregating Results

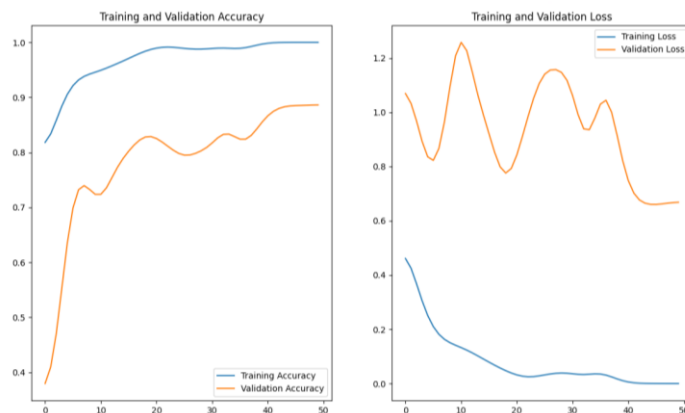
Visualizing the first batch of images.



Confusion_Matrix



Training and Validation Accuracy



Predicted Picture

