

Model Development Phase Template

Date	11 July 2024
Team ID	SWTID1720011518
Project Title	WCE curated Colon Disease Classification using Deep Learning
Maximum Marks	5 Marks

Model Selection Report

In the model selection report for future deep learning and computer vision projects, various architectures, such as CNNs or RNNs, will be evaluated. Factors such as performance, complexity, and computational requirements will be considered to determine the most suitable model for the task at hand.

Model Selection Report:

Model	Description
VGG16	<p>By using feature extraction, we have used the VGG16 pre-trained model. One Dense and one Flatten layer is used. The loss function is categorical_crossentropy, optimizer is “adam” and metrics for evaluation is accuracy.</p> <p>For 5 epochs:</p> <p>The Training Loss is: 0.0272</p> <p>The Training Accuracy is: 0.9909</p> <p>The Validation Loss is: 0.0190</p> <p>The Validation Accuracy is: 0.9907</p>

Resnet50	<p>By using feature extraction, we have used the Resnet50 pre-trained model. One Dense and one Flatten layer is used. The loss function is categorical_crossentropy, optimizer is “adam” and metrics for evaluation is accuracy.</p> <p>For 5 epochs:</p> <p>The Training Loss is: 0.3833</p> <p>The Training Accuracy is: 0.8625</p> <p>The Validation Loss is: 0.2326</p> <p>The Validation Accuracy is: 0.9047</p>
InceptionV3	<p>By using feature extraction, we have used the InceptionV3 pre-trained model. One Dense and one Flatten layer is used. The loss function is categorical_crossentropy, optimizer is “adam” and metrics for evaluation is accuracy.</p> <p>For 5 epochs:</p> <p>The Training Loss is: 0.2585</p> <p>The Training Accuracy is: 0.9850</p> <p>The Validation Loss is: 4.9814</p> <p>The Validation Accuracy is: 0.8537</p>