Model Development Phase Template

Date	11 July 2024
Team ID	SWTID1720080895
RIPE-SENSE: MANGO QUALITY GRADINGWITH IMAGE ANALYSIS AND DEEP LEARNING	RIPE-SENSE: MANGO QUALITY GRADINGWITH IMAGE ANALYSIS AND 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	**EfficientNet:** **Type**: Convolutional Neural Network (CNN) **Strengths:** - Utilizes compound scaling to optimize model depth, width, and resolution across different scales (B0 to B7), achieving state-of-the-art performance in accuracy. - Provides an efficient trade-off between model size and computational resources, making it adaptable and effective for diverse deployment scenarios. **Weaknesses:** - Requires fine-tuning for specific tasks due to its general-purpose design. - Training can be computationally intensive, especially for larger models like EfficientNet-B7.

EfficientNet	**EfficientNet:** **Strengths:** • Compound scaling technique optimizes model depth, width, and resolution across different scales (B0 to B7), achieving state-of-the-art performance in accuracy. • Provides an efficient trade-off between model size and computational resources, making it adaptable and effective for diverse deployment scenarios. **Weaknesses:** • May require fine-tuning for specific tasks due to its general-purpose design. • Training can be computationally intensive, especially for larger models like EfficientNet-B7.