Model Development Phase Template

Date	July 2024
Team ID	739861
Project Title	Frappe Activity: Mobile Phone Activity Classification
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:

Bagging Classifier	A Bagging (Bootstrap Aggregating) classifier is an ensemble machine learning method that improves the stability and accuracy of algorithms by training multiple versions of a model on different random subsets of the training data (with replacement) and then averaging their predictions. This technique helps reduce variance and avoid overfitting.
Decision Tree Classifier	The Decision Tree Classifier is chosen due to its ability to handle non-linear relationships, interpretability in decision-making processes, and robustness in handling diverse types of data relevant to shipping logistics.
Random Forest Classifier	The Random Forest Classifier is ideal because it combines the strength of multiple decision trees, offering high accuracy, robust performance against overfitting , and the ability to handle large and complex datasets, ensuring reliable predictions in varied shipping scenarios.
XGBoost Classifier	The XGBoost due to its superior performance in handling large datasets, capability to capture complex relationships in data, robustness against overfitting, and ability to optimize predictive accuracy through boosting techniques, ensuring reliable and efficient shipping logistics predictions.