Model Development Phase Template

Date	11 December 2024
Team ID	739876
Project Title	Alzheimer Disease Prediction
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
Xception model	The Xception model, an advanced deep learning architecture, has been effectively applied to Alzheimer's disease prediction using imaging data such as MRI or PET scans. Built on the principles of the Inception model, it enhances performance through depthwise separable convolutions, which separate spatial feature extraction from channel-wise filtering, reducing computational complexity while improving accuracy. This makes Xception particularly suited for medical image analysis, as it efficiently captures intricate spatial patterns and subtle biomarkers associated with Alzheimer's. By leveraging its robust feature extraction capabilities, researchers can classify disease stages or detect early signs of Alzheimer's with high precision, aiding in timely diagnosis and intervention.