

COMP 6721- Group ResNet

Contribution page

Vibhor Gulati (Data Specialist) 40238072	Dhyey Nilesh Doshi (Training specialist) 40244534	Namrata Pankajkumar Brahmbhatt (Evaluation Specialist) 40233323
<ul style="list-style-type: none">• Gather and curate a comprehensive dataset from various reliable sources, ensuring diversity and representativeness.• Standardize image dimensions and normalize pixel values.• Identify and remove corrupted or invalid images to maintain dataset integrity.• Implemented code for iterative approach for semi-supervised learning• Implemented code for single image prediction.• Worked on the reports for every phase.	<ul style="list-style-type: none">• Design and train a supervised decision tree model for initial image classification tasks.• Fine-tune models, adjust hyperparameters, and implement techniques to prevent overfitting.• Implement and train a CNN model to enhance classification accuracy using deep learning techniques.• Trained multiple versions of CNN model to decide on the best model using multiple layer combinations.• Worked on the reports for every phase.	<ul style="list-style-type: none">• Design and execute validation strategies to assess the performance of the supervised decision tree, semi-supervised decision tree, and CNN models.• Analyze key performance metrics such as accuracy, precision, recall, F1-score and confusion matrix.• Compare the performance of different models and document the findings.• Implement semi-supervised learning techniques, combining labeled and unlabeled data to improve model performance.• Worked on the reports for every phase.