Chapter 11

Future Scope

11.1 - Future Scope

• Increase the dataset size to improve model accuracy and generalization.

• Include more dog breeds to make the system more comprehensive.

• Fine-tune advanced deep learning architectures beyond models trained on ImageNet for better performance.

• Implement ensemble learning techniques to reduce misclassification.

• Develop real-time dog breed detection using live camera input.

• Create a mobile application version for better accessibility.

• Deploy the system on cloud platforms to handle large-scale user traffic.

• Add breed information details such as characteristics, lifespan, and health conditions.

• Introduce mixed-breed prediction with multiple probability outputs.

• Improve image preprocessing to handle low-quality or blurred images.

• Integrate the system with veterinary clinics and pet adoption platforms.

• Enhance user interface design for better user experience.

• Implement continuous model retraining using new datasets.

• Add multilingual support for global users.

• Expand the system to classify other animals in the future.