Answers

1. What methods would choose to tune your hyper parameters?

I would use grid search tuning method for my model.

2. How would you optimize your model training?

Adam optimization algorithm to train the model. Based on the performance change the batch size.

3.How would you optimize for deployment?

For deployment model should be faster also withe good accuracy so latency should be less when we are working with video. Adjusting the batch size.

4.How would you deploy your model?

This is a classification algorithm that predicted between kangaroo and no kangaroo so if I am going to deploy it would be app or GUI that will predict kangaroo is there or not whenever we put new image. Predicted is based on the accuracy we are getting for the image. I would deploy it has single image detection.

5.What methods would you use to improve your accuracy?

First increase the number of images in the dataset or more data to train and test. Collect more features form the data and selecting the feature that matches better and tuning the algorithm parameters to get better model

6.How would you avoid overfitting?

To avoid overfitting early stop once value accuracy get flattened, training with more data and remove unwanted features from the model.

7.What evaluation metrics would you use, if you have an imbalanced dataset?

Threshold metrics for imbalanced dataset. Plot Accuracy and error.

8.Can you describe a pipeline and the components of using the current model to perform Real time object detection on the edge?

To use the model in real time we run the model.predit in the video loop to the images. Open cv to run the video feed and send the image to model for prediction.