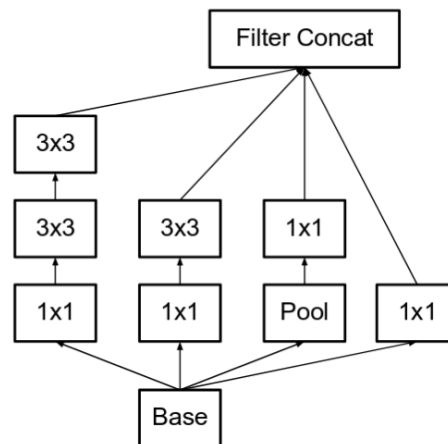

Tutorial Questions | Week 6

COSC2779 - Deep Learning

This tutorial is aimed at reviewing famous CNN architectures. Please try the questions before you join the session.

1. The GoogLeNet uses inception modules as the basic building block.
 - (a) Why does inception module have multiple paths?
 - (b) The following diagram shows a variant of the basic inception model called inception V2. What is the main difference of this module compared to the basic inception block? Why is that advantageous?



- (c) What does the auxiliary classifier in the GoogLeNet do?
 - (d) What is the final loss function to train GoogLeNet?
2. In ResNet, residual blocks usually have same input and output shapes (height and width). How is the spacial dimensions reduced in ResNet?
 3. Why does global average pooling based models have significantly less parameters than older CNN architectures like VGG, AlexNet?
 4. What are the main types of object detection networks. Explain the major novelties.