Create Deep Learning Network Architecture

Script for creating the layers for a deep learning network with the following properties:

Number of layers: 144

Number of connections: 170

Run the script to create the layers in the workspace variable lgraph.

To learn more, see [Generate MATLAB Code From Deep Network Designer](matlab:helpview('deeplearning','generate_matlab_code')).

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# Create Layer Graph

Create the layer graph variable to contain the network layers.

lgraph = layerGraph();

# Add Layer Branches

Add the branches of the network to the layer graph. Each branch is a linear array of layers.

tempLayers = [

imageInputLayer([224 224 3],"Name","data")

convolution2dLayer([7 7],64,"Name","conv1-7x7\_s2","BiasLearnRateFactor",2,"Padding",[3 3 3 3],"Stride",[2 2])

reluLayer("Name","conv1-relu\_7x7")

maxPooling2dLayer([3 3],"Name","pool1-3x3\_s2","Padding",[0 1 0 1],"Stride",[2 2])

crossChannelNormalizationLayer(5,"Name","pool1-norm1","K",1)

convolution2dLayer([1 1],64,"Name","conv2-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","conv2-relu\_3x3\_reduce")

convolution2dLayer([3 3],192,"Name","conv2-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","conv2-relu\_3x3")

crossChannelNormalizationLayer(5,"Name","conv2-norm2","K",1)

maxPooling2dLayer([3 3],"Name","pool2-3x3\_s2","Padding",[0 1 0 1],"Stride",[2 2])];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],96,"Name","inception\_3a-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3a-relu\_3x3\_reduce")

convolution2dLayer([3 3],128,"Name","inception\_3a-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_3a-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_3a-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],32,"Name","inception\_3a-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3a-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],64,"Name","inception\_3a-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3a-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],16,"Name","inception\_3a-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3a-relu\_5x5\_reduce")

convolution2dLayer([5 5],32,"Name","inception\_3a-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_3a-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = depthConcatenationLayer(4,"Name","inception\_3a-output");

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_3b-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],64,"Name","inception\_3b-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3b-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],128,"Name","inception\_3b-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3b-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],32,"Name","inception\_3b-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3b-relu\_5x5\_reduce")

convolution2dLayer([5 5],96,"Name","inception\_3b-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_3b-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],128,"Name","inception\_3b-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_3b-relu\_3x3\_reduce")

convolution2dLayer([3 3],192,"Name","inception\_3b-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_3b-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

depthConcatenationLayer(4,"Name","inception\_3b-output")

maxPooling2dLayer([3 3],"Name","pool3-3x3\_s2","Padding",[0 1 0 1],"Stride",[2 2])];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],96,"Name","inception\_4a-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4a-relu\_3x3\_reduce")

convolution2dLayer([3 3],208,"Name","inception\_4a-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_4a-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],16,"Name","inception\_4a-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4a-relu\_5x5\_reduce")

convolution2dLayer([5 5],48,"Name","inception\_4a-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_4a-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],192,"Name","inception\_4a-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4a-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_4a-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],64,"Name","inception\_4a-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4a-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = depthConcatenationLayer(4,"Name","inception\_4a-output");

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],160,"Name","inception\_4b-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4b-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],112,"Name","inception\_4b-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4b-relu\_3x3\_reduce")

convolution2dLayer([3 3],224,"Name","inception\_4b-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_4b-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_4b-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],64,"Name","inception\_4b-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4b-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],24,"Name","inception\_4b-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4b-relu\_5x5\_reduce")

convolution2dLayer([5 5],64,"Name","inception\_4b-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_4b-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = depthConcatenationLayer(4,"Name","inception\_4b-output");

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_4c-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],64,"Name","inception\_4c-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4c-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],128,"Name","inception\_4c-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4c-relu\_3x3\_reduce")

convolution2dLayer([3 3],256,"Name","inception\_4c-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_4c-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],128,"Name","inception\_4c-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4c-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],24,"Name","inception\_4c-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4c-relu\_5x5\_reduce")

convolution2dLayer([5 5],64,"Name","inception\_4c-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_4c-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = depthConcatenationLayer(4,"Name","inception\_4c-output");

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],32,"Name","inception\_4d-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4d-relu\_5x5\_reduce")

convolution2dLayer([5 5],64,"Name","inception\_4d-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_4d-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],112,"Name","inception\_4d-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4d-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_4d-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],64,"Name","inception\_4d-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4d-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],144,"Name","inception\_4d-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4d-relu\_3x3\_reduce")

convolution2dLayer([3 3],288,"Name","inception\_4d-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_4d-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = depthConcatenationLayer(4,"Name","inception\_4d-output");

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_4e-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],128,"Name","inception\_4e-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4e-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],32,"Name","inception\_4e-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4e-relu\_5x5\_reduce")

convolution2dLayer([5 5],128,"Name","inception\_4e-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_4e-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],160,"Name","inception\_4e-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4e-relu\_3x3\_reduce")

convolution2dLayer([3 3],320,"Name","inception\_4e-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_4e-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],256,"Name","inception\_4e-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_4e-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

depthConcatenationLayer(4,"Name","inception\_4e-output")

maxPooling2dLayer([3 3],"Name","pool4-3x3\_s2","Padding",[0 1 0 1],"Stride",[2 2])];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],32,"Name","inception\_5a-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5a-relu\_5x5\_reduce")

convolution2dLayer([5 5],128,"Name","inception\_5a-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_5a-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],160,"Name","inception\_5a-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5a-relu\_3x3\_reduce")

convolution2dLayer([3 3],320,"Name","inception\_5a-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_5a-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_5a-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],128,"Name","inception\_5a-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5a-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],256,"Name","inception\_5a-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5a-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = depthConcatenationLayer(4,"Name","inception\_5a-output");

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],192,"Name","inception\_5b-3x3\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5b-relu\_3x3\_reduce")

convolution2dLayer([3 3],384,"Name","inception\_5b-3x3","BiasLearnRateFactor",2,"Padding",[1 1 1 1])

reluLayer("Name","inception\_5b-relu\_3x3")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],48,"Name","inception\_5b-5x5\_reduce","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5b-relu\_5x5\_reduce")

convolution2dLayer([5 5],128,"Name","inception\_5b-5x5","BiasLearnRateFactor",2,"Padding",[2 2 2 2])

reluLayer("Name","inception\_5b-relu\_5x5")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

maxPooling2dLayer([3 3],"Name","inception\_5b-pool","Padding",[1 1 1 1])

convolution2dLayer([1 1],128,"Name","inception\_5b-pool\_proj","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5b-relu\_pool\_proj")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

convolution2dLayer([1 1],384,"Name","inception\_5b-1x1","BiasLearnRateFactor",2)

reluLayer("Name","inception\_5b-relu\_1x1")];

lgraph = addLayers(lgraph,tempLayers);

tempLayers = [

depthConcatenationLayer(4,"Name","inception\_5b-output")

globalAveragePooling2dLayer("Name","pool5-7x7\_s1")

dropoutLayer(0.4,"Name","pool5-drop\_7x7\_s1")

fullyConnectedLayer(1000,"Name","loss3-classifier","BiasLearnRateFactor",2)

softmaxLayer("Name","prob")

classificationLayer("Name","output")];

lgraph = addLayers(lgraph,tempLayers);

% clean up helper variable

clear tempLayers;

# Connect Layer Branches

Connect all the branches of the network to create the network graph.

lgraph = connectLayers(lgraph,"pool2-3x3\_s2","inception\_3a-3x3\_reduce");

lgraph = connectLayers(lgraph,"pool2-3x3\_s2","inception\_3a-pool");

lgraph = connectLayers(lgraph,"pool2-3x3\_s2","inception\_3a-1x1");

lgraph = connectLayers(lgraph,"pool2-3x3\_s2","inception\_3a-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_3a-relu\_1x1","inception\_3a-output/in1");

lgraph = connectLayers(lgraph,"inception\_3a-relu\_5x5","inception\_3a-output/in3");

lgraph = connectLayers(lgraph,"inception\_3a-relu\_pool\_proj","inception\_3a-output/in4");

lgraph = connectLayers(lgraph,"inception\_3a-relu\_3x3","inception\_3a-output/in2");

lgraph = connectLayers(lgraph,"inception\_3a-output","inception\_3b-pool");

lgraph = connectLayers(lgraph,"inception\_3a-output","inception\_3b-1x1");

lgraph = connectLayers(lgraph,"inception\_3a-output","inception\_3b-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_3a-output","inception\_3b-3x3\_reduce");

lgraph = connectLayers(lgraph,"inception\_3b-relu\_pool\_proj","inception\_3b-output/in4");

lgraph = connectLayers(lgraph,"inception\_3b-relu\_1x1","inception\_3b-output/in1");

lgraph = connectLayers(lgraph,"inception\_3b-relu\_3x3","inception\_3b-output/in2");

lgraph = connectLayers(lgraph,"inception\_3b-relu\_5x5","inception\_3b-output/in3");

lgraph = connectLayers(lgraph,"pool3-3x3\_s2","inception\_4a-3x3\_reduce");

lgraph = connectLayers(lgraph,"pool3-3x3\_s2","inception\_4a-5x5\_reduce");

lgraph = connectLayers(lgraph,"pool3-3x3\_s2","inception\_4a-1x1");

lgraph = connectLayers(lgraph,"pool3-3x3\_s2","inception\_4a-pool");

lgraph = connectLayers(lgraph,"inception\_4a-relu\_1x1","inception\_4a-output/in1");

lgraph = connectLayers(lgraph,"inception\_4a-relu\_5x5","inception\_4a-output/in3");

lgraph = connectLayers(lgraph,"inception\_4a-relu\_3x3","inception\_4a-output/in2");

lgraph = connectLayers(lgraph,"inception\_4a-relu\_pool\_proj","inception\_4a-output/in4");

lgraph = connectLayers(lgraph,"inception\_4a-output","inception\_4b-1x1");

lgraph = connectLayers(lgraph,"inception\_4a-output","inception\_4b-3x3\_reduce");

lgraph = connectLayers(lgraph,"inception\_4a-output","inception\_4b-pool");

lgraph = connectLayers(lgraph,"inception\_4a-output","inception\_4b-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_4b-relu\_1x1","inception\_4b-output/in1");

lgraph = connectLayers(lgraph,"inception\_4b-relu\_pool\_proj","inception\_4b-output/in4");

lgraph = connectLayers(lgraph,"inception\_4b-relu\_5x5","inception\_4b-output/in3");

lgraph = connectLayers(lgraph,"inception\_4b-relu\_3x3","inception\_4b-output/in2");

lgraph = connectLayers(lgraph,"inception\_4b-output","inception\_4c-pool");

lgraph = connectLayers(lgraph,"inception\_4b-output","inception\_4c-3x3\_reduce");

lgraph = connectLayers(lgraph,"inception\_4b-output","inception\_4c-1x1");

lgraph = connectLayers(lgraph,"inception\_4b-output","inception\_4c-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_4c-relu\_3x3","inception\_4c-output/in2");

lgraph = connectLayers(lgraph,"inception\_4c-relu\_pool\_proj","inception\_4c-output/in4");

lgraph = connectLayers(lgraph,"inception\_4c-relu\_1x1","inception\_4c-output/in1");

lgraph = connectLayers(lgraph,"inception\_4c-relu\_5x5","inception\_4c-output/in3");

lgraph = connectLayers(lgraph,"inception\_4c-output","inception\_4d-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_4c-output","inception\_4d-1x1");

lgraph = connectLayers(lgraph,"inception\_4c-output","inception\_4d-pool");

lgraph = connectLayers(lgraph,"inception\_4c-output","inception\_4d-3x3\_reduce");

lgraph = connectLayers(lgraph,"inception\_4d-relu\_1x1","inception\_4d-output/in1");

lgraph = connectLayers(lgraph,"inception\_4d-relu\_5x5","inception\_4d-output/in3");

lgraph = connectLayers(lgraph,"inception\_4d-relu\_pool\_proj","inception\_4d-output/in4");

lgraph = connectLayers(lgraph,"inception\_4d-relu\_3x3","inception\_4d-output/in2");

lgraph = connectLayers(lgraph,"inception\_4d-output","inception\_4e-pool");

lgraph = connectLayers(lgraph,"inception\_4d-output","inception\_4e-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_4d-output","inception\_4e-3x3\_reduce");

lgraph = connectLayers(lgraph,"inception\_4d-output","inception\_4e-1x1");

lgraph = connectLayers(lgraph,"inception\_4e-relu\_5x5","inception\_4e-output/in3");

lgraph = connectLayers(lgraph,"inception\_4e-relu\_3x3","inception\_4e-output/in2");

lgraph = connectLayers(lgraph,"inception\_4e-relu\_pool\_proj","inception\_4e-output/in4");

lgraph = connectLayers(lgraph,"inception\_4e-relu\_1x1","inception\_4e-output/in1");

lgraph = connectLayers(lgraph,"pool4-3x3\_s2","inception\_5a-5x5\_reduce");

lgraph = connectLayers(lgraph,"pool4-3x3\_s2","inception\_5a-3x3\_reduce");

lgraph = connectLayers(lgraph,"pool4-3x3\_s2","inception\_5a-pool");

lgraph = connectLayers(lgraph,"pool4-3x3\_s2","inception\_5a-1x1");

lgraph = connectLayers(lgraph,"inception\_5a-relu\_1x1","inception\_5a-output/in1");

lgraph = connectLayers(lgraph,"inception\_5a-relu\_5x5","inception\_5a-output/in3");

lgraph = connectLayers(lgraph,"inception\_5a-relu\_3x3","inception\_5a-output/in2");

lgraph = connectLayers(lgraph,"inception\_5a-relu\_pool\_proj","inception\_5a-output/in4");

lgraph = connectLayers(lgraph,"inception\_5a-output","inception\_5b-3x3\_reduce");

lgraph = connectLayers(lgraph,"inception\_5a-output","inception\_5b-5x5\_reduce");

lgraph = connectLayers(lgraph,"inception\_5a-output","inception\_5b-pool");

lgraph = connectLayers(lgraph,"inception\_5a-output","inception\_5b-1x1");

lgraph = connectLayers(lgraph,"inception\_5b-relu\_1x1","inception\_5b-output/in1");

lgraph = connectLayers(lgraph,"inception\_5b-relu\_pool\_proj","inception\_5b-output/in4");

lgraph = connectLayers(lgraph,"inception\_5b-relu\_3x3","inception\_5b-output/in2");

lgraph = connectLayers(lgraph,"inception\_5b-relu\_5x5","inception\_5b-output/in3");

# Plot Layers

plot(lgraph);