

Homework 03 - Custom CNNs

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Due Feb 19 by 11:59pm **Points** 20 **Submitting** a file upload
File Types zip and tar **Available** Feb 12 at 4:30pm - Feb 26 at 11:59pm

Use your own data and complete the following steps. Complete the assignment within a .ipynb notebook. Submit a .zip file containing your data and the results.

Refer to demo_03-classification for examples of setting up a custom dataset.

Step 1. Create your own custom dataset featuring 3 custom categories of at least 100 images each

Step 2. Split this data between 80% training and 20% test

Step 3. Preprocess the data as you see fit

Step 4. Create a Convolutional Neural Network model to learn about your training set

Step 5. Make predictions on the test data and compare them to the expected categories

Step 6: Use GoogleNet(InceptionNet) and add a LinearLayer on top of it.

Step 7: Train the GoogleNet model and compare the accuracy with the first model.