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CSC-498-01

Primary Objective:

Objective to make an effective facial/image recognition recognition CNN using some yet to be determined data-set. Testing a change in variable such as filter size.

Other thoughts: Not sure which framework to use. Some sort of python, Probably have to use tensorflow too. Maybe build one from scratch or attempt to build one using google colab with siamese network or ti-pooling

Which dataset maybe UTKFace, CACD for celebrity recognition, FFHQ

Train 10 CNN’s starting with the NN’s with random weights for evaluation.

| Factor | Values |
| --- | --- |
| Filter sizes | 2x2, 3x3, 4x4 |
| Activation functions | Sigmoid (NN), RELU (CNN) |
| Images | Train with 20000 images  Train with 18000 and test with 2000 |
| Number of hidden layers in classification | 1 |
| Number of Convolution Layers | 1 |
| Padding Types | Zero Padding,No Padding |
| Number of Pooling Layers | 1 |
| Pooling Types | Max |

Figure out how many total images to work with. For example if you choose to work with 100,000 images then: Train with 90,000 and test with 10,000 - So you slice (give thought to this based on how the data is) up the image set into 10 10,000 image groups and rotate which group is the test group and the rest are the training.