SUPER DATASCIENCE
MAKING THE COMPLEX SIMPLE

WORKSHOP 040 PYTHON- HIGHWAY TRAFFIC CLASSIFICATION USING NEURAL NETWORKS

Here are some clues in case you are stuck with the case study:

1. Try looking at the distributions of each classes. You can select mini-batches of your own with balanced classes so that it is solved to some extent
2. Try playing around with hidden layer activations, ‘relu’,’sigmoid’,’tanh’, etc. What gives you a better accuracy?
3. Look at the model-complexity vs the number of observations we have. It is very easy to get carried away and create huge CNN models. In short, limit the model complexity if you have a limited dataset
4. Look for ways to train a very small ANN from the images. To do this, we have to go from the image space to the feature space and then classify the features generated from each images. We can use pre-

trained CNN models available in Keras to do this. (Eg. VGG, Inception, etc)

5. Regularize your model using Dropout and Noise for better performances.