

AOBD Lab 2

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Errors faced and obtained solution (if found)

Problem: 1

```
'''TODO: Define the compile operation with your optimizer and learning rate of choice'''  
cnn_model.compile(optimizer='''TODO''', loss='sparse_categorical_crossentropy', metrics=['accuracy']) # TODO
```

Solution: Unable to figure out todo part of optimizer.

Problem: 2

```
0%|          | 0/5000 [00:00<?, ?it/s]  
  
-----  
TypeError                                Traceback (most recent call last)  
<ipython-input-20-ac3bdac688af> in <module>()  
    20  
    21     #'''TODO: compute the categorical cross entropy loss  
--> 22     loss_value = tf.keras.backend.sparse_categorical_crossentropy(logits) # TODO  
    23  
    24     loss_history.append(loss_value.numpy().mean()) # append the loss to the loss_history record  
  
/usr/local/lib/python3.7/dist-packages/tensorflow/python/util/dispatch.py in wrapper(*args, **kwargs)  
    199     """Call target, and fall back on dispatchers if there is a TypeError."""  
    200     try:  
--> 201         return target(*args, **kwargs)  
    202     except (TypeError, ValueError):  
    203         # Note: convert_to_eager_tensor currently raises a ValueError, not a  
  
TypeError: sparse_categorical_crossentropy() missing 1 required positional argument: 'output'
```

Solution: argument missing on the function call solved by adding labels in the argument

Problem: 3

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-6-c4fa0b16eabb> in <module>()
      1 ### Defining and creating the DB-VAE ###
      2
----> 3 class DB_VAE(tf.keras.Model):
      4     def __init__(self, latent_dim):
      5         super(DB_VAE, self).__init__()

NameError: name 'tf' is not defined

SEARCH STACK OVERFLOW
```

Solution: tf is not detected, solved after re running the previous modules

Problem: 4

```
Starting epoch 1/6
Recomputing the sampling probabilities
0%|          | 0/3434 [00:00<?, ?it/s]

-----
NameError                                Traceback (most recent call last)
<ipython-input-18-0a72ed3a0ba4> in <module>()
     54 (x, y) = loader.get_batch(batch_size, p_pos=p_faces)
     55 # loss optimization
--> 56 loss = debiasing_train_step(x, y)
     57
     58 # plot the progress every 200 steps

      8 frames
/usr/local/lib/python3.7/dist-packages/tensorflow/python/framework/func_graph.py in wrapper(*args, **kwargs)
    975 except Exception as e: # pylint:disable=broad-except
    976     if hasattr(e, "ag_error_metadata"):
--> 977         raise e.ag_error_metadata.to_exception(e)
    978     else:
    979         raise

NameError: in user code:

<ipython-input-18-0a72ed3a0ba4>:26 debiasing_train_step *
      loss, class_loss = debiasing_loss_function(x, x_recon, y, y_logit, z_mean, z_logsigma) # TODO
<ipython-input-13-000d84149d11>:18 debiasing_loss_function *
      vae_loss = vae_loss_function(x, x_pred, mu, logsigma) # TODO

NameError: name 'vae_loss_function' is not defined

SEARCH STACK OVERFLOW
```

Solution: unsolved error