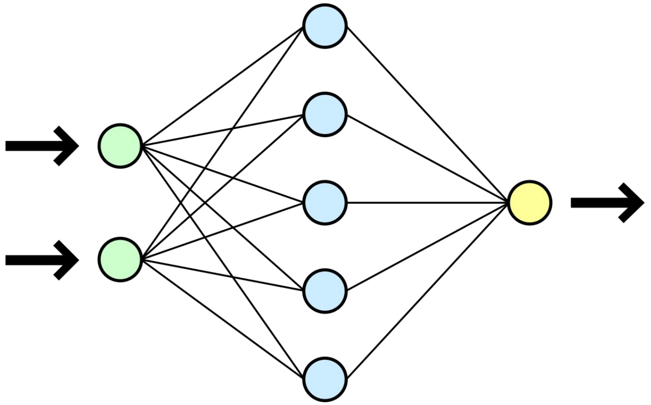
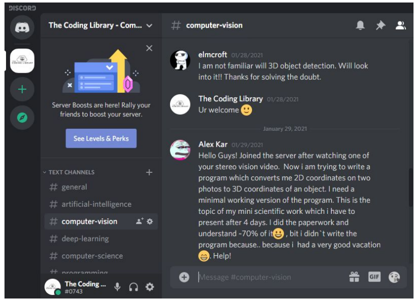


THE CODING LIBRARY

Neural Networks

Callback Functions



# computer-vision

elmcroft 01/28/2021
I am not familiar will 3D object detection. Will look into it!! Thanks for solving the doubt.

The Coding Library 01/28/2021
Ur welcome 🙂

January 29, 2021

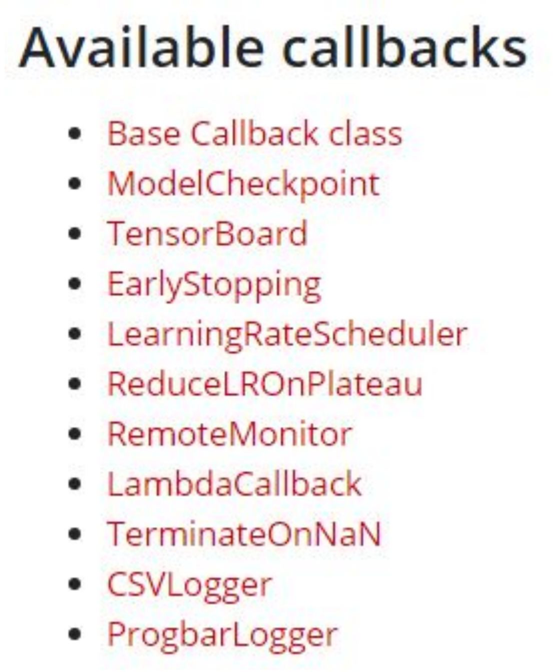
Alex Kar 01/29/2021
Hello Guys! Joined the server after watching one of your stereo vision video. Now i am trying to write a program which converts me 2D coordinates on two photos to 3D coordinates of an object. I need a minimal working version of the program. This is the topic of my mini scientific work which i have to present after 4 days. I did the paperwork and understand ~70% of it😃 , bit i didn`t write the program because.. because i had a very good vacation 😁. Help!

Discord Link in Description

What are Callback Functions?

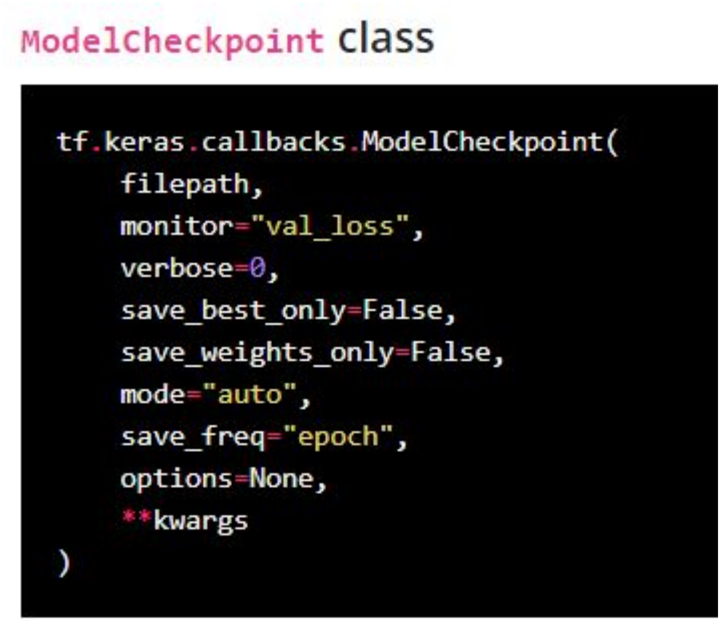
- A Callback Function is a function which is accessible by another function
- It is invoked after the first function if that first function completes
- Useful for asynchronous behaviour where we want an activity to take place whenever a previous event completes.
- Can be used to change values/parameters during function calls
- Can be used for logging and storing relevant information on the way

Callback Functions in Keras


Available callbacks

- Base Callback class
- ModelCheckpoint
- TensorBoard
- EarlyStopping
- LearningRateScheduler
- ReduceLROnPlateau
- RemoteMonitor
- LambdaCallback
- TerminateOnNaN
- CSVLogger
- ProgbarLogger

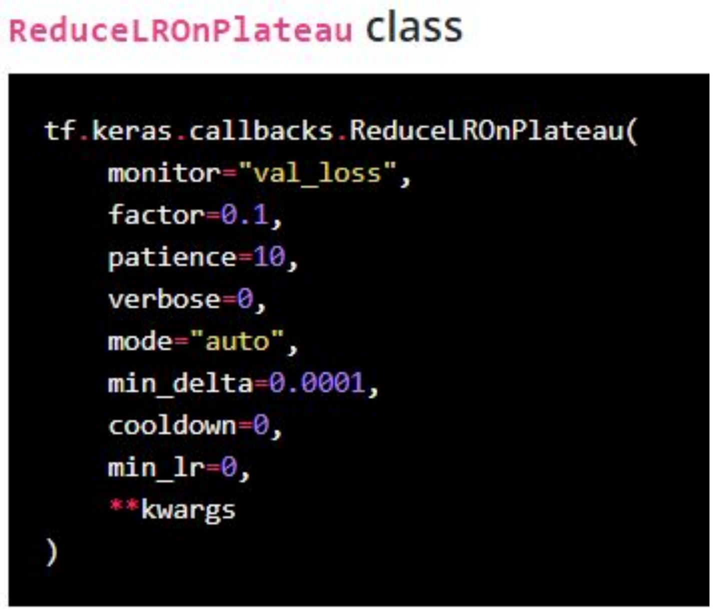
Callback Functions in Keras



ModelCheckpoint class

```
tf.keras.callbacks.ModelCheckpoint(
    filepath,
    monitor="val_loss",
    verbose=0,
    save_best_only=False,
    save_weights_only=False,
    mode="auto",
    save_freq="epoch",
    options=None,
    **kwargs
)
```

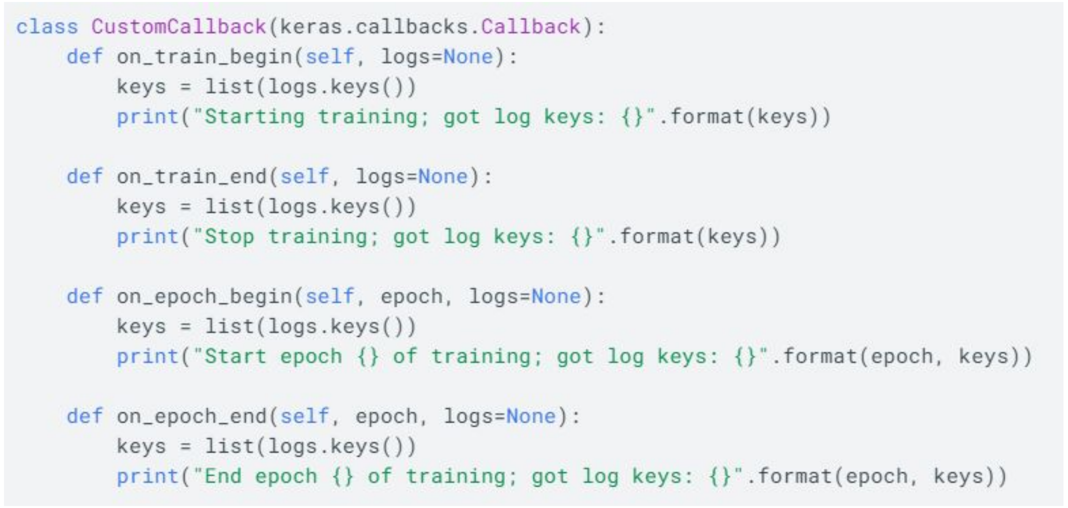
Callback Functions in Keras



ReduceLROnPlateau class

```
tf.keras.callbacks.ReduceLROnPlateau(
    monitor="val_loss",
    factor=0.1,
    patience=10,
    verbose=0,
    mode="auto",
    min_delta=0.0001,
    cooldown=0,
    min_lr=0,
    **kwargs
)
```

Create Your Own Callback Functions



```python
class CustomCallback(keras.callbacks.Callback):
    def on_train_begin(self, logs=None):
        keys = list(logs.keys())
        print("Starting training; got log keys: {}".format(keys))

    def on_train_end(self, logs=None):
        keys = list(logs.keys())
        print("Stop training; got log keys: {}".format(keys))

    def on_epoch_begin(self, epoch, logs=None):
        keys = list(logs.keys())
        print("Start epoch {} of training; got log keys: {}".format(epoch, keys))

    def on_epoch_end(self, epoch, logs=None):
        keys = list(logs.keys())
        print("End epoch {} of training; got log keys: {}".format(epoch, keys))
```