

Q6 Readme

1. Use openCV to load all the mp4 data
2. Get 20 frames out of the whole video and resize it to 60*60*3 (noise reduction)
3. Use a 3D-CNN model to do classification (Keras)
4. Resize and extract the frames
4. Get the final prediction

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Epoch 20/30
438/438 [=====] - 19s 44ms/step - loss: 0.2107 - acc: 0.9977 - val_loss: 1.9895 - val_acc: 0.3838
Epoch 21/30
438/438 [=====] - 20s 45ms/step - loss: 0.1337 - acc: 1.0000 - val_loss: 2.0411 - val_acc: 0.3838
Epoch 22/30
438/438 [=====] - 19s 44ms/step - loss: 0.1035 - acc: 0.9977 - val_loss: 1.9271 - val_acc: 0.3939
Epoch 23/30
438/438 [=====] - 19s 44ms/step - loss: 0.0757 - acc: 1.0000 - val_loss: 1.8995 - val_acc: 0.4040
Epoch 24/30
438/438 [=====] - 20s 45ms/step - loss: 0.0666 - acc: 1.0000 - val_loss: 1.9397 - val_acc: 0.4040
Epoch 25/30
438/438 [=====] - 19s 44ms/step - loss: 0.0494 - acc: 1.0000 - val_loss: 1.9422 - val_acc: 0.4040
Epoch 26/30
438/438 [=====] - 20s 45ms/step - loss: 0.0490 - acc: 1.0000 - val_loss: 2.0187 - val_acc: 0.3636
Epoch 27/30
438/438 [=====] - 19s 44ms/step - loss: 0.0383 - acc: 1.0000 - val_loss: 1.9945 - val_acc: 0.4343
Epoch 28/30
438/438 [=====] - 19s 44ms/step - loss: 0.0313 - acc: 1.0000 - val_loss: 1.9918 - val_acc: 0.3737
Epoch 29/30
438/438 [=====] - 19s 44ms/step - loss: 0.0242 - acc: 1.0000 - val_loss: 2.0334 - val_acc: 0.3434
Epoch 30/30
438/438 [=====] - 20s 45ms/step - loss: 0.0209 - acc: 1.0000 - val_loss: 1.9576 - val_acc: 0.4242
```

My best validation accuracy is 0.4343.

