Using CNNs to classify people in Famous48 dataset - Subject 12c

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1 Introduction

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Note: Full code can be found in *notebook_keras.ipynb*. Due to limited space, we provide here only the most important code.

2 Libraries used

Firstly, we import all our libraries:

```
1  import numpy as np
2  import tensorflow as tf
3  from tensorflow import keras
4
5  from keras import layers
6  from keras import regularizers
7  from keras import backend as K
8  from keras import Sequential, Input
9  from keras.optimizers import SGD, Adam
10 from keras.losses import categorical_crossentropy
11 from keras.callbacks import LearningRateScheduler
12
13 from sklearn.model_selection import train_test_split
14
15 import matplotlib.pyplot as plt
16
17 import math
18 from functools import partial
```

3 File loading

This is our code for loading files and we will not change it throughout our journey:

```
1  import numpy as np
2  import tensorflow as tf
```

```python
from tensorflow import keras

from keras import layers
from keras import regularizers
from keras import backend as K
from keras import Sequential, Input
from keras.optimizers import SGD, Adam
from keras.losses import categorical_crossentropy
from keras.callbacks import LearningRateScheduler

from sklearn.model_selection import train_test_split

import matplotlib.pyplot as plt

import math
from functools import partial
```

4 Another section