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Convolutional neural network (CNN) (Any One from the followi  
Fashion Dataset and create a classifier to classify fashion clothi

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[3]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import tensorflow as tf
import tensorflow.keras as keras
from keras.utils import to_categorical
from tensorflow.keras.utils import plot_model
from tensorflow.keras.datasets import fashion_mnist
from tensorflow.keras import models, layers
from tensorflow.keras.preprocessing.image import Image
from keras.layers import Dense, Dropout, Flatten, Conv2
from sklearn.metrics import confusion_matrix, classifi
```

```
[4]: (X_train, y_train), (X_test, y_test) = fashion_mnist.l
class_names = ['T-shirt/top', 'Trouser', 'Pullover', '
X_train = X_train.reshape((X_train.shape[0], 28, 28, 1
X_test = X_test.reshape((X_test.shape[0], 28, 28, 1))
X_train = X_train.astype('float32') / 255
X_test = X_test.astype('float32') / 255

y_train = to_categorical(y_train, num_classes=10)
y_test = to_categorical(y_test, num_classes=10)
```

```
[5]: model = keras.Sequential()
```

```
[6]: model.add(Conv2D(32, (3, 3), activation='relu', kernel_
```