

# Adding CNN Layers

**Topic:** AI-powered Nutrition Analyzer for Fitness Enthusiasts

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## Adding CNN Layers

- As the input image contains three channels, we are specifying the input shape as (64,64,3).
- We are adding a two-convolution layer with an activation function as “relu” and with a small filter size (3,3) and the number of filters (32) followed by a max-pooling layer.
- Max pool layer is used to downsample the input (Max pooling is a pooling operation that selects the maximum element from the region of the feature map covered by the filter)
- Flatten layer flattens the input. Does not affect the batch size.

### Adding CNN Layers

#### First Convolution Layer and pooling

```
[ ] model.add(Conv2D(32, (3, 3), input_shape=(64, 64, 3), activation='relu'))  
    model.add(MaxPooling2D(pool_size=(2, 2)))
```

#### Second Convolution Layer and pooling

```
▶ model.add(Conv2D(32, (3, 3), activation='relu'))  
   model.add(MaxPooling2D(pool_size=(2, 2)))
```

#### Flatten layer

```
[ ] model.add(Flatten())
```