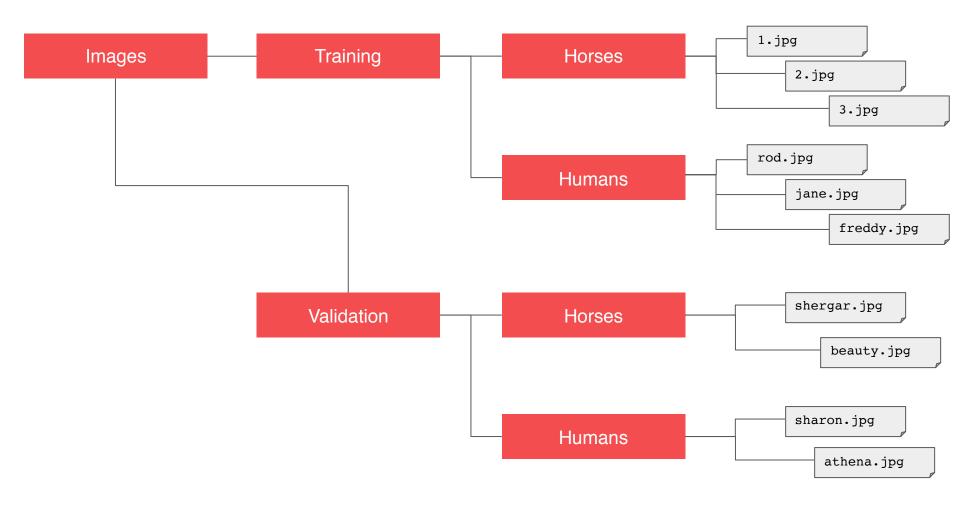
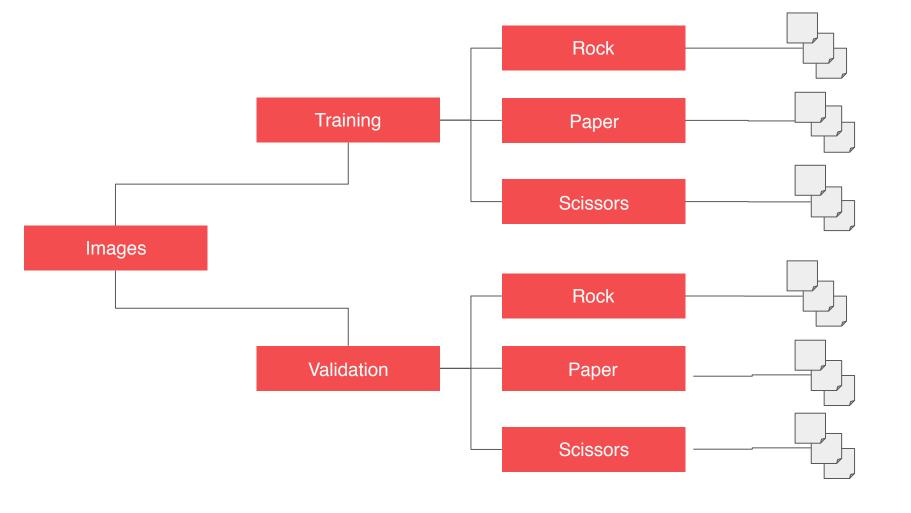
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http://www.laurencemoroney.com/rock-paper-scissors-dataset/



Rock Paper Scissors Dataset

Introducing Rock Paper Scissors - A multi class learning dataset

Abstract

Rock Paper Scissors is a dataset containing 2,892 images of diverse hands in Rock/Paper/Scissors poses. It is licensed CC By 2.0 and available for all purposes, but it's intent is primarily for learning and research.

Overview

Rock Paper Scissors contains images from a variety of different hands, from different races, ages and genders, posed into Rock / Paper or Scissors and labelled as such. You can download the training set here, and the test set here. These images have all been generated using CGI techniques as an experiment in determining if a CGI-based dataset can be

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In the third episode of the Intro to Google Colaboratory series, @Imoroney covers how to quickly build a neural network for basic Breast Cancer classification.

Watch this #CodingTensorFlow → bit.ly/2SPD4XC

P.S. Don't forget to add your homework



```
train_datagen = ImageDataGenerator(rescale=1./255)

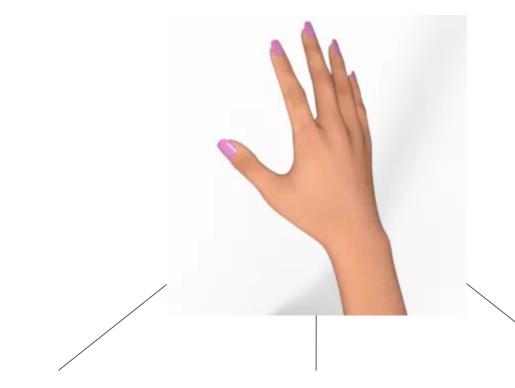
train_generator = train_datagen.flow_from_directory(
    train_dir,
    target_size=(300, 300),
    batch_size=128,
    class_mode='binary')
```

```
train_datagen = ImageDataGenerator(rescale=1./255)

train_generator = train_datagen.flow_from_directory(
    train_dir,
    target_size=(300, 300),
    batch_size=128,
    class_mode='categorical')
```

```
model = tf.keras.models.Sequential([
  tf.keras.layers.Conv2D(16, (3,3), activation='relu',
                 input shape=(300, 300, 3)),
  tf.keras.layers.MaxPooling2D(2, 2),
  tf.keras.layers.Conv2D(32, (3,3), activation='relu'),
  tf.keras.layers.MaxPooling2D(2,2),
  tf.keras.layers.Conv2D(64, (3,3), activation='relu'),
  tf.keras.layers.MaxPooling2D(2,2),
  tf.keras.layers.Flatten(),
  tf.keras.layers.Dense(512, activation='relu')
  tf.keras.layers.Dense(1, activat on='sigmoid')
```

```
model = tf.keras.models.Sequential([
  tf.keras.layers.Conv2D(16, (3,3), activation='relu',
                 input shape=(300, 300, 3)),
  tf.keras.layers.MaxPooling2D(2, 2),
  tf.keras.layers.Conv2D(32, (3,3), activation='relu'),
  tf.keras.layers.MaxPooling2D(2,2),
  tf.keras.layers.Conv2D(64, (3,3), activation='relu'),
  tf.keras.layers.MaxPooling2D(2,2),
  tf.keras.layers.Flatten(),
  tf.keras.layers.Dense(512, activation='relu')
  tf.keras.layers.Dense(3, activat on='softmax')
```



Rock: 0.001 Paper: 0.647

Scissors: 0.352 from tensorflow.keras.optimizers import RMSprop

```
model.compile(loss='binary_crossentropy',
optimizer=RMSprop(lr=0.001),
metrics=['acc'])
```

from tensorflow.keras.optimizers import RMSprop

