



IBM Developer
SKILLS NETWORK

Hands on Lab: Classify your images with AI!

Estimated Effort: 30 minutes

Lab overview:

IBM Watson Visual Recognition (VR) is a service that uses deep learning algorithms to identify objects and other content in an image. In this hands-on lab, you will use Watson VR URL to upload and classify images.

Objectives:

After completing this lab, you will be able to:

- Exploring Watson Visual Recognition
- Understanding Pre Trained Models
- Learn how to use Watson Visual Recognition to analyze images.

Hands-on Lab - Visual Recognition

Exploring Watson Visual Recognition

IBM provides an online demo of Watson Visual Recognition.

Click here to view the demo [Watson Visual Recognition](#)

There is a pre-trained Visual recognition model which analyzes and identifies the object.


Step I

Use the following steps to explore the demo:

Pre Trained Models

1. By default, the image of the person in the tweed jacket is selected.
2. In the output section on the right, Note that Watson has identified characteristics that exist in the image.

Input



Output

TableJSON

Result

Top Classes	Score
gray color	<div><div></div></div> 0.95
fabric	<div><div></div></div> 0.94
Harris Tweed (jacket)	<div><div></div></div> 0.81
clothing	<div><div></div></div> 0.80
tweed	<div><div></div></div> 0.68

3. What level of confidence does Watson have that the image is of:

- fabric
- gray color
- Harris Tweed (jacket)
- clothing

4. Select the image of liquid in a beaker.

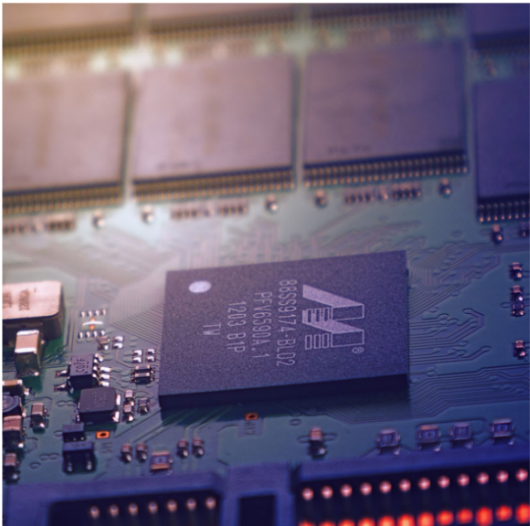
5. Under General Model, review the options. Watson can identify characteristics that exist in the image.

6. What level of confidence does Watson have that the image is of:

- chocolate color
- beverage
- food

7. Select the given two images (hard disk and beaker) and analyze the result. You will see predictions as given below.

Input




Output

TableJSON

Result

Top Classes	Score
ultramarine color	0.91
electrical device	0.67
sequencer (apparatus)	0.63
apparatus	0.63
equipment	0.60
conductor	0.60
system	0.60
electronic equipment	0.60
memory device	0.60
computer circuit	0.54

Input



Output

TableJSON

Result

Top Classes	Score
chocolate color	0.97
food	0.78
beverage	0.71
alcoholic beverage	0.70
wine	0.63
soy sauce	0.57
condiment	0.57
food seasoning	0.57
food ingredient	0.57
food product	0.57

8. Now, upload a random image, download it from google and analyze the result.




⬆

Select or drag an image

Select An Image to Analyze

We have uploaded a dog image under the VR model, here is the result:

Input



Select An Image to Analyze

Output

TableJSON

Result

Top Classes	Score
animal	0.84
domestic animal	0.83
dog	0.83
light brown color	0.71
pale yellow color	0.69
retriever dog	0.69
golden retriever dog	0.58
terrier dog	0.51
soft-coated wheaten terrier dog	0.50

9. Save the screenshot of Step 8 output for your final assignment.

Note- Ensure the screenshot includes the picture you uploaded along with the labels and confidence scores, the model returns.

Step II - OPTIONAL

By now you are familiar with the Visual Recognition model.

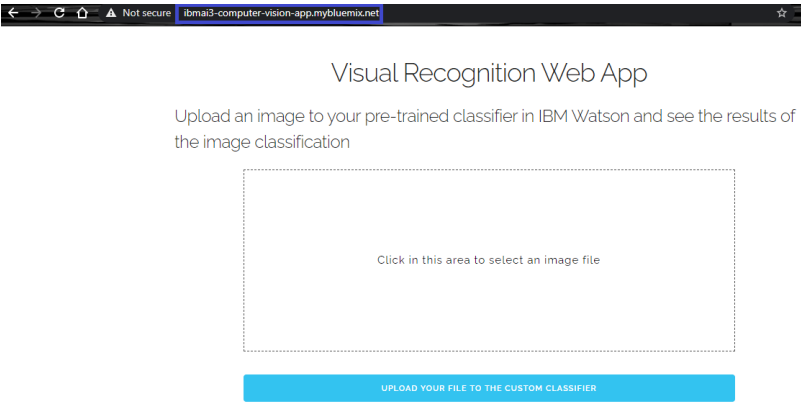
In this exercise, you need to upload an image in .jpg format to the **General Visual Recognition model** we created for you.

Use the below links to test the **General model**

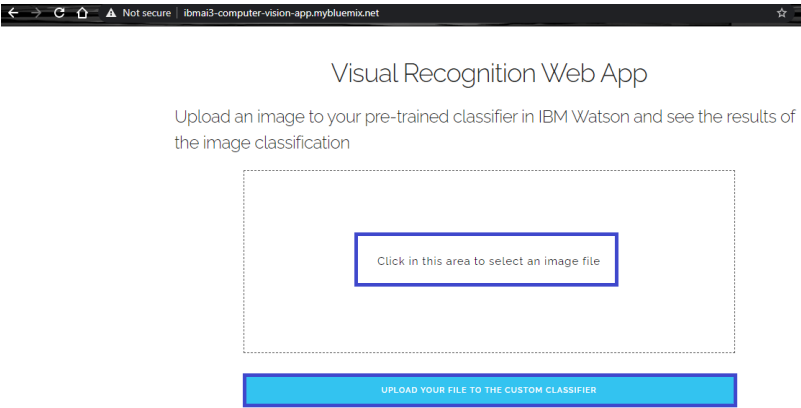
- <http://ibmai3-computer-vision-app.mybluemix.net/>

Step 1

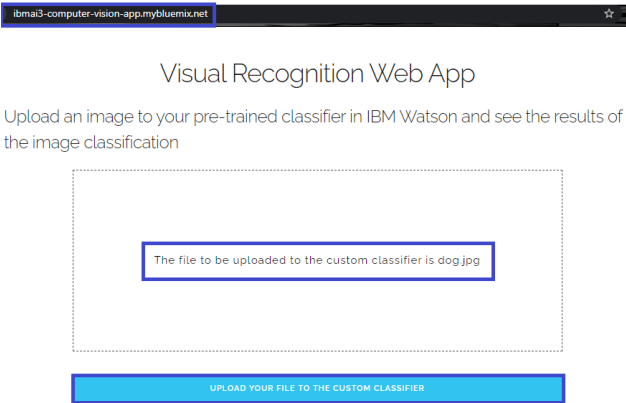
1. Go to the URL <http://ibmai3-computer-vision-app.mybluemix.net/>, you should see the below screen:



2. Click on **Click in this area to select an image file** or you can drag an image directly under this box:



3. Once the file is uploaded, click on **UPLOAD YOUR FILE TO THE CUSTOM CLASSIFIER**



4. You should see the top results of the classification:

Visual Recognition Web App

You uploaded an image to IBM Visual Recognition pre-trained classifier in IBM Watson and see the results of the image classification



Here are the top result(s) of the classification

Class Labels	Class Scores
pale yellow color	0.909
animal	0.908
dog	0.907

Congratulations on completing your Visual Recognition lab!

Author(s)

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Changelog

Date	Version	Changed by	Change Description
2020-10-27	2.0	Srishti	Created VR lab
2021-03-25	3.0	Srishti	Updated instructions

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