Image Model

Teach Base on Images, From Webcam

Mirza Ali Ahmad Mughal
Superior University Lahore
BSEM-F16-338

***Abstract*—this document is an Image Model Project in which we mark the percentage about image display.**

Keywords—Image, percentage, preview (key words**)**

I. INTRODUCTION

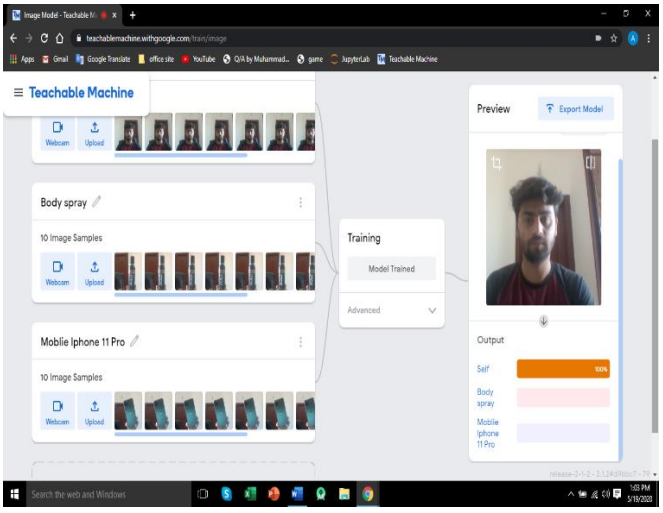
Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it. It is a type of signal processing in which input is an image and output may be image or characteristics/features associated with that image. Nowadays, image processing is among rapidly growing technologies. It forms core research area within engineering and computer science disciplines too.

Image processing basically includes the following three steps:

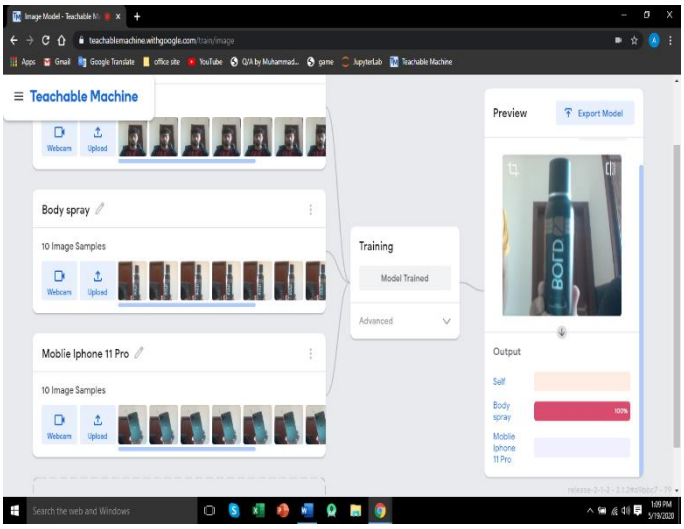
- Importing the image via image acquisition tools;
- Analyzing and manipulating the image;
- Output in which result can be altered image or report that is based on image analysis.

II. WORKING SCREENSHOT

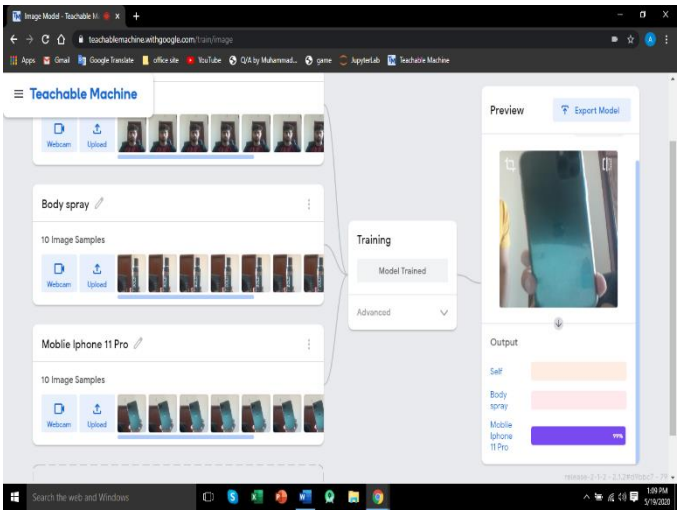
A. *ScreenShot 1 Self*



B. *ScreenShot 2 Body Spray*



C. *ScreenShot 3 Moblie*



III. SOURCE CODE (JAVA SCRIPT)

```
<div>Teachable Machine Image Model</div>
<button type="button" onclick="init()">Start</button>
<div id="webcam-container"></div>
<div id="label-container"></div>
<script
src="https://cdn.jsdelivr.net/npm/@tensorflow/tfjs@1.3.1/dist/tf.min.js"></script>
```

```
<script
src="https://cdn.jsdelivr.net/npm/@teachablemachine/image@0.8/dist/teachablemachine-image.min.js"></script>
<script type="text/javascript">
    // More API functions here:
    // https://github.com/googlecreativelab/teachablemachine-community/tree/master/libraries/image

    // the link to your model provided by Teachable Machine export panel
    const URL = "./my_model/";

    let model, webcam, labelContainer, maxPredictions;

    // Load the image model and setup the webcam
    async function init() {
        const modelURL = URL + "model.json";
        const metadataURL = URL + "metadata.json";

        // load the model and metadata
        // Refer to tmImage.loadFromFiles() in the API to support files from a file picker
        // or files from your local hard drive
        // Note: the pose library adds "tmImage" object to your window (window.tmImage)
        model = await tmImage.load(modelURL, metadataURL);
        maxPredictions = model.getTotalClasses();

        // Convenience function to setup a webcam
        const flip = true; // whether to flip the webcam
        webcam = new tmImage.Webcam(200, 200, flip); // width, height, flip
        await webcam.setup(); // request access to the webcam
        await webcam.play();
        window.requestAnimationFrame(loop);

        // append elements to the DOM
        document.getElementById("webcam-container").appendChild(webcam.canvas);
        labelContainer = document.getElementById("label-container");
        for (let i = 0; i < maxPredictions; i++) { // and class labels

labelContainer.appendChild(document.createElement("div"));
        }
    }

    async function loop() {
        webcam.update(); // update the webcam frame
        await predict();
        window.requestAnimationFrame(loop);
    }

    // run the webcam image through the image model
    async function predict() {
        // predict can take in an image, video or canvas html element
        const prediction = await model.predict(webcam.canvas);
        for (let i = 0; i < maxPredictions; i++) {
            const classPrediction =
                prediction[i].className + ": " + prediction[i].probability.toFixed(2);
            labelContainer.childNodes[i].innerHTML = classPrediction;
        }
    }
</script>
```

IV. TECHABLE MACHINE

https://teachablemachine.withgoogle.com/models/A-q26kbad/

https://teachablemachine.withgoogle.com/train/image/1Jy4jNKH8GJOuamMoc0FP9VFlH8Gbmgcc

V. GITHUB CODE LINK

https://github.com/Mughal027/Image-Model/tree/master

VI. REFRERCENSE

https://teachablemachine.withgoogle.com/