Image Model

Teach Base on Images, From Webcam

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***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

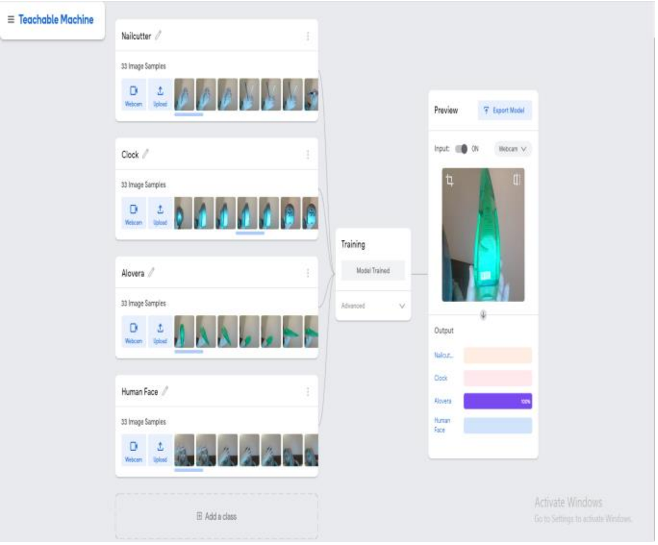
Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it. It is a type of signal processing in which input is an image and output may be image or characteristics/features associated with that image. Nowadays, 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:

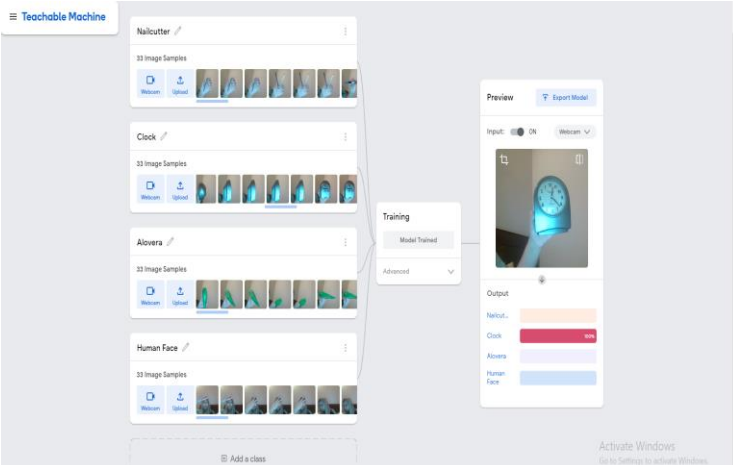
- Importing the image via image acquisition tools;
- Analyzing and manipulating the image;
- Output in which result can be altered image or report that is based on image analysis.

II. Working ScreenShot

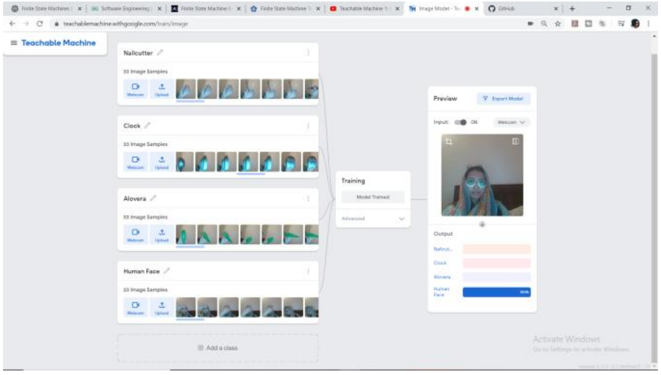
A. ScreenShot 1 Alovera Gel bottel



B. ScreenShot 2 Clock



C. ScreenShot 3 My Self Human Face



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/@tensorflo
      w/tfjs@1.3.1/dist/tf.min.js"></script>
<script
      src="https://cdn.jsdelivr.net/npm/@teachable
      machine/image@0.8/dist/teachablemachine-
      image.min.js"></script>
<script type="text/javascript">
    // More API functions here:
    //
      https://github.com/googlecreativelab/teachab
      lemachine-
      community/tree/master/libraries/image

    // the link to your model provided by
      Teachable Machine export panel
    const URL =
      "https://teachablemachine.withgoogle.com/m
      odels/_YwfIDcDF/";

    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.cr
   eateElement("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/train/image/1ArOhtu9_haV2SwNBKJxp6NQq4bLKjIi0

https://drive.google.com/file/d/1ArOhtu9_haV2SwNBKJxp6NQq4bLKjIi0/view

V. GITHUB CODE LINK

https://github.com/tatheer135/Image-Model-Classification-Data-Science

VI. REFRERCENSE

https://teachablemachine.withgoogle.com/