

# Test your Origin

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## INDEX

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### 01 \_ Project Overview

- 1) Project description
- 2) Purpose of the project

### 02 \_ Overview of Architecture

- 1) Basic structure
- 2) Related work

### 03 \_ Construction of the Project

- 1) Method
- 2) Result

### 04 \_ Conclusion

# 01 \_ Project Overview

Project description

## POINT

A face recognition AI tells the user where he/she is originated from by look

## DESCRIPTION

- The user upload his/her picture on the web page

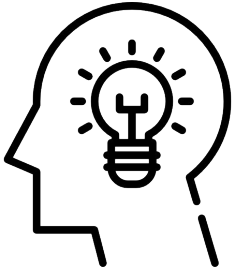
- Match and display the user's origin

- Gives a brief explanation of the user's origin

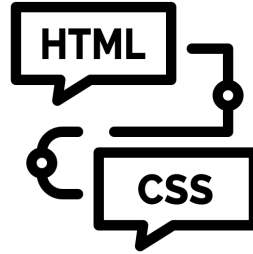
- Show result on each percentage of different origin

## 01 \_ Project Overview

The purpose of this project



To understand the **basic concept** of AI using machine learning



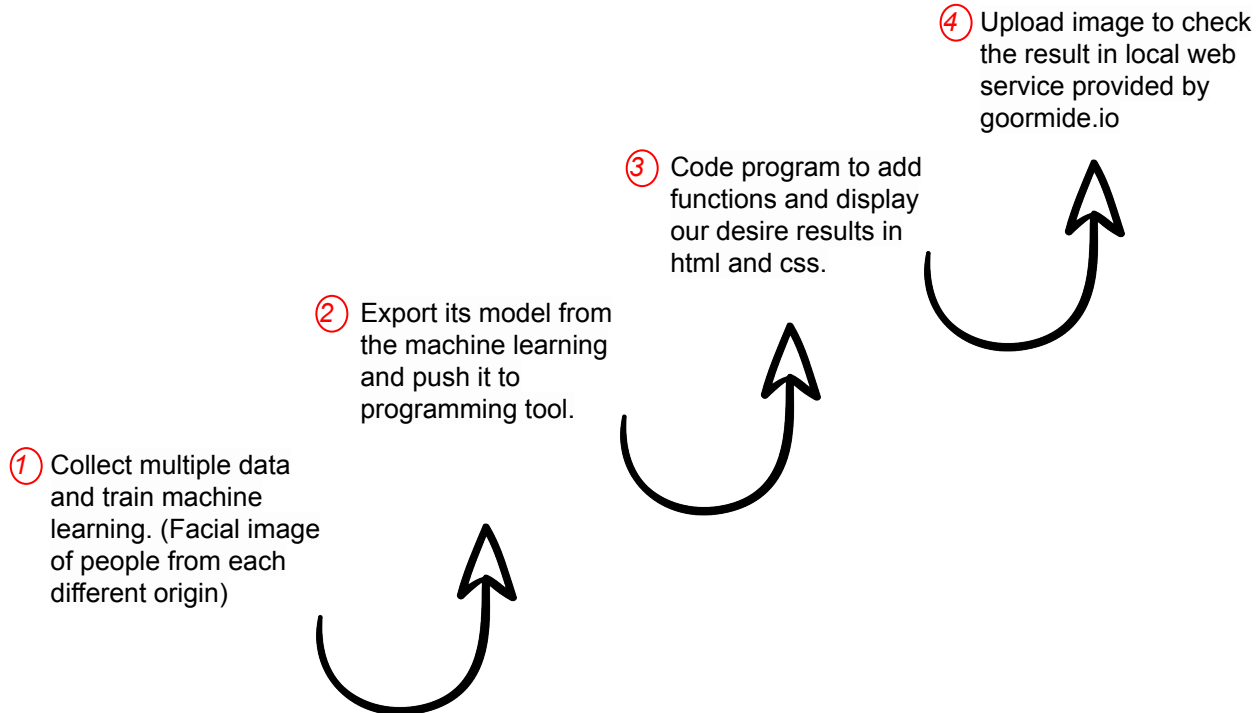
To improve our **skills** in Javascript and web design



To gain real-life **experience** indirectly

## 02\_ Overview of Architecture

Basic structure



## 02\_ Overview of Architecture

Related work

1

### AI Fruit Book



AI looks at camera images, distinguishes fruits, and informs characteristics.

2

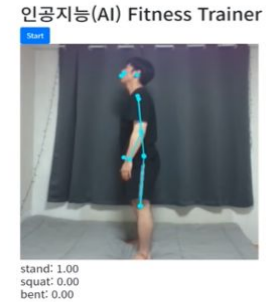
### Emotion Learning AI



AI tells the user's emotion by collecting facial image from the user.

3

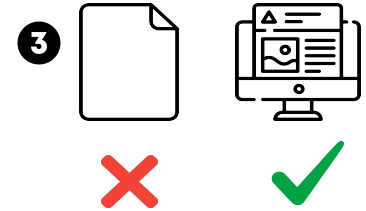
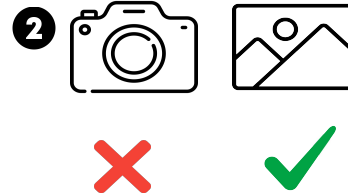
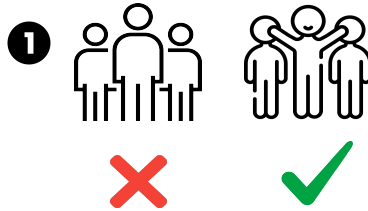
### AI Fitness Trainer



The number of exercises is counted with Post Recognition AI.

## 03\_ Construction of the Project

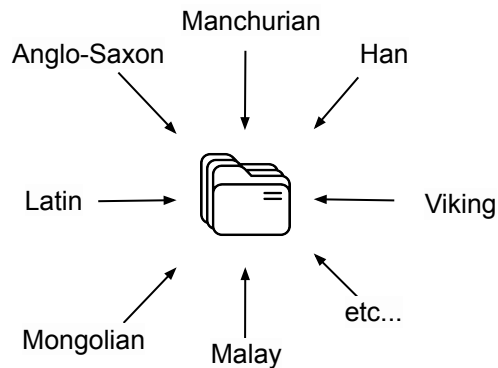
Method(1)



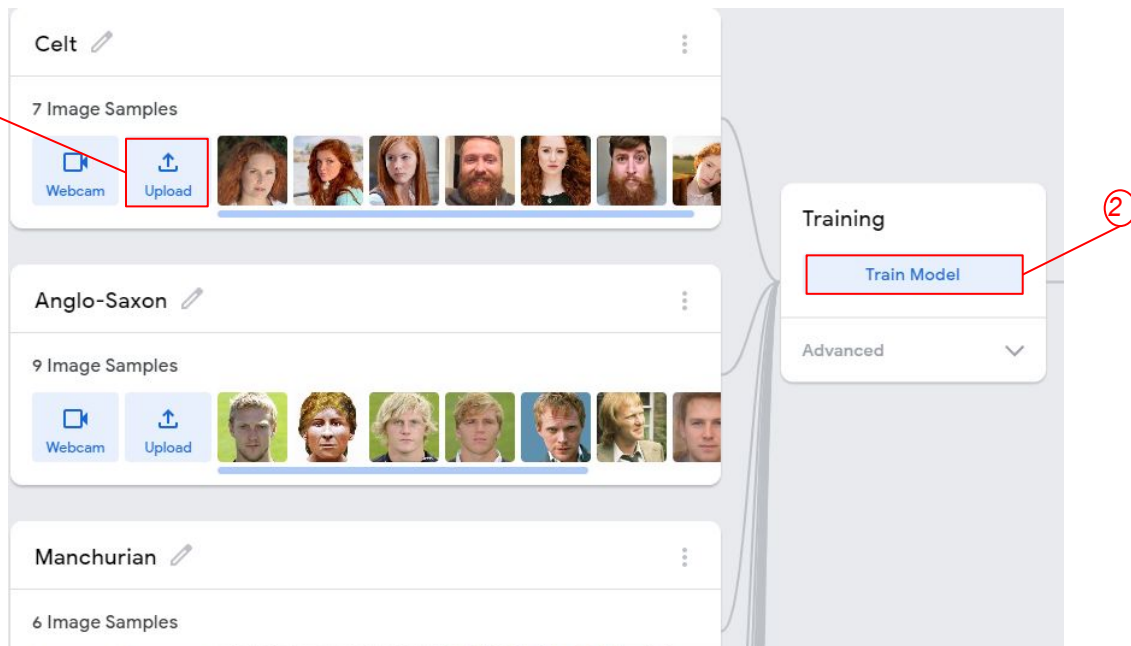
## 03\_ Construction of the Project

Method(2)

STEP 1



"Total of 15 origins"





## 03\_ Construction of the Project

Method(3)

### STEP 2

JavaScript p5.js Contribute on Github

Learn more about how to use the code snippet on [github](#).

```
<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;
```

1

Copy

index.html style.css

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <link rel="stylesheet" href="style.css" />
5   <link rel="preconnect" href="https://fonts.googleapis.com" />
6   <link rel="preconnect" href="https://fonts.gstatic.com" crossorigin />
7   <link
8     href="https://fonts.googleapis.com/css2?family=Outfit:wght@200&family=Poppins:wght@200;400&display=swap"
9     rel="stylesheet"
10  />
11 </head>
12 <body>
13   <p class="title">
14     Test Your Origin!
15   </p>
16   <div class="wrapper">
17     <button class="mybtn" type="button" onclick="init()">Start</button>
18     <button class="mybtn" type="button" onclick="predict()">Predict</button>
19   </div>
20   <script
21     class="jsbin"
22     src="https://ajax.googleapis.com/ajax/libs/jquery/1/jquery.min.js"
23   ></script>
24   <div class="file-upload">
25     <button
26       class="file-upload-btn"
27       type="button"
28       onclick="$( '.file-upload-input' ).trigger( 'click' )"
29     >
30       Add Image
31     </button>
32
```

2

## 03\_ Construction of the Project

Method(4)

### STEP 3

```
index.html x style.css
26 class="file-upload-btn"
27 type="button"
28 onclick="${'.file-upload-input').trigger( 'click' )}"
29
30 >
31 Add Image
32 </button>
33
34 <div class="image-upload-wrap">
35   <input
36     class="file-upload-input"
37     type="file"
38     onchange="readURL(this);"
39     accept="image/*"
40   />
41   <div class="drag-text">
42     <h3>Drag and drop a file or select add Image</h3>
43   </div>
44 </div>
45 <div class="file-upload-content">
46   
47   <div class="image-title-wrap">
48     <button type="button" onclick="removeUpload()" class="remove-image">
49       Remove <span class="image-title">Uploaded Image</span>
50     </button>
51   </div>
52 </div>
53 <div id="print-subtitle"></div>
54 <div id="print-explain"></div>
55 <div id="webcam-container"></div>
56 <div id="label-container"></div>
57 <div id="label-container" class="d-flex flex-column justify-content-around"></div>
```

```
index.html x style.css
117 }
118 }
119
120 // run the webcam image through the image model
121 async function predict() {
122   // predict can take in an image, video or canvas html element
123   var image = document.getElementById('face-image');
124   const prediction = await model.predict(image, false);
125   prediction.sort((a, b) => parseFloat(b.probability) - parseFloat(a.probability));
126   document.getElementById('print-subtitle').innerHTML =
127     'You are a ' + prediction[0].className + '!';
128   var resultExplain = '';
129   switch (prediction[0].className) {
130     case 'Celt':
131       resultExplain =
132         'The Celts were a collection of tribes with origins in central Europe that shared a similar
133       break;
134     case 'Manchurian':
135       resultExplain =
136         'The Manchu are a Tungustic people - meaning from Tunguska - of Northeastern China. Original
137       break;
138     case 'Mongolian':
139       resultExplain =
140         'The Mongolians have kept their nomadic living style for hundreds of years. Mongolian origin
141       break;
142     case 'Hun':
143       resultExplain =
144         'The Huns were a nomadic people who lived in Central Asia, the Caucasus, and Eastern Europe
145       break;
146     case 'Germanic':
147       resultExplain =
148         'The Germanic peoples were a historical group of people living in Central Europe and Scandin
```

## 03\_ Construction of the Project

Method(5)

### STEP 4

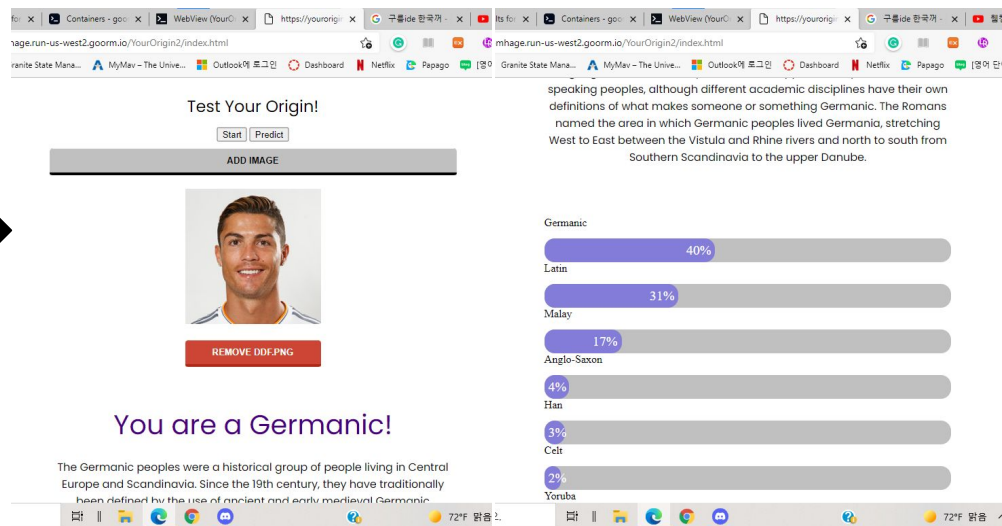
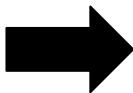
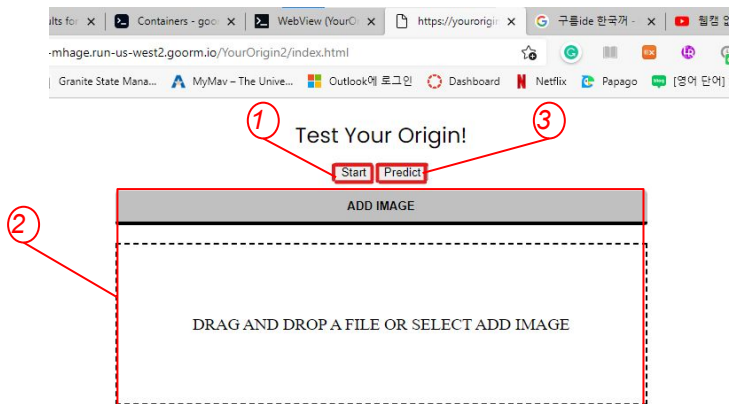
```
index.html x style.css
182 case 'Zulu':
183     resultExplain =
184         'Zulu people are an Nguni ethnic group in Southern Africa. The Zulu people are the largest
185     break;
186 case 'Yoruba':
187     resultExplain =
188         'The Yoruba people are a Sub-Saharan African ethnic group who inhabit West Africa and mainly
189     break;
190 default:
191     resultExplain = 'N/A';
192 }
193 document.getElementById('print-explain').innerHTML = resultExplain;
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```

```
index.html style.css x
1 * body {
2     background-color: #ffffff;
3 }
4
5 * .title {
6     font-family: 'Poppins', sans-serif;
7     font-size: 1.5em;
8     text-align: center;
9 }
10
11 * .wrapper {
12     float: left;
13     width: 100%;
14     text-align: center;
15     position: relative;
16     top: 50%;
17     left: 50%;
18     transform: translate(-50%, -50%);
19 }
20
21 * .mybtn {
22     display: inline-block;
23 }
24
25 * .file-upload {
26     background-color: #ffffff;
27     width: 600px;
28     margin: 0 auto;
29     padding: 20px;
30 }
31
32 * .file-upload-btn {
```

2

## 03\_ Construction of the Project

Result in image

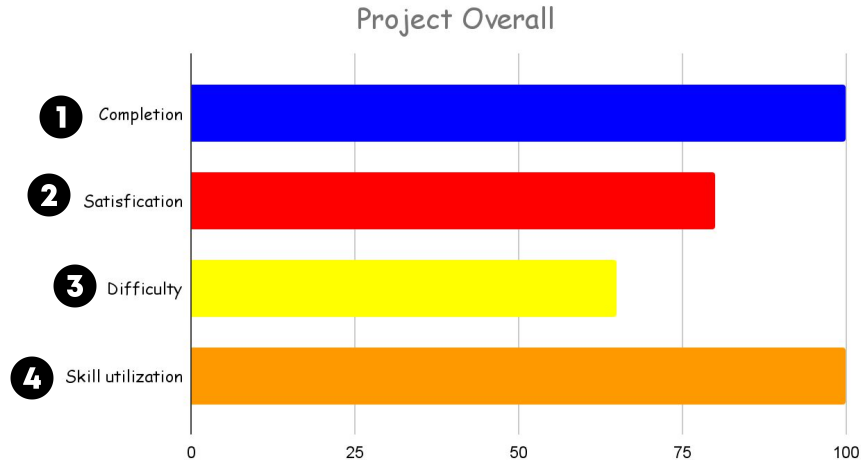


## 03\_ Construction of the Project

Result in video



## 04 \_ Conclusion



1 Took more time than expected, but **successfully added** all the functions.

2 **Failed to add** more design to the project but still satisfies with the result.

3 Expected to be easy task in the beginning but it was **challenging** at the end.

4 How to work with html and css are essential skills for programmers in the future. Learned a lot and **gain confidence**.

\_ thank you

— Youtube link:

<https://youtu.be/Moo9D1-Ko2k>

— IDE link:

<https://goor.me/U4zPm>