TranscribeASP

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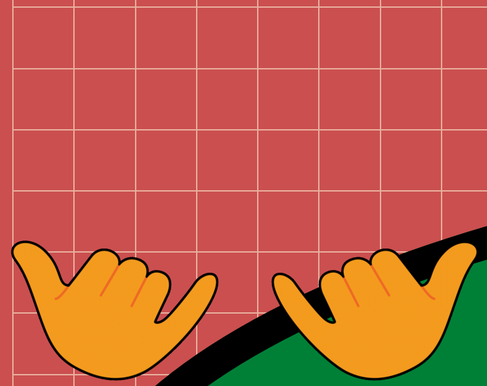


Introduction

The project focuses on translating American Sign Language (ASL) into text in real-time using python, wekinator and processing.

Methodology

PYTHON

Image processing

Process the training data images to obtain the coordinates of the hands

WEKI

Training

Obtains 42 inputs (21 points in total, but x and y coordinates), trains the data with 24 classes.

PROCESING

Results

Maps the output classes received from wekinator and turns them into text.

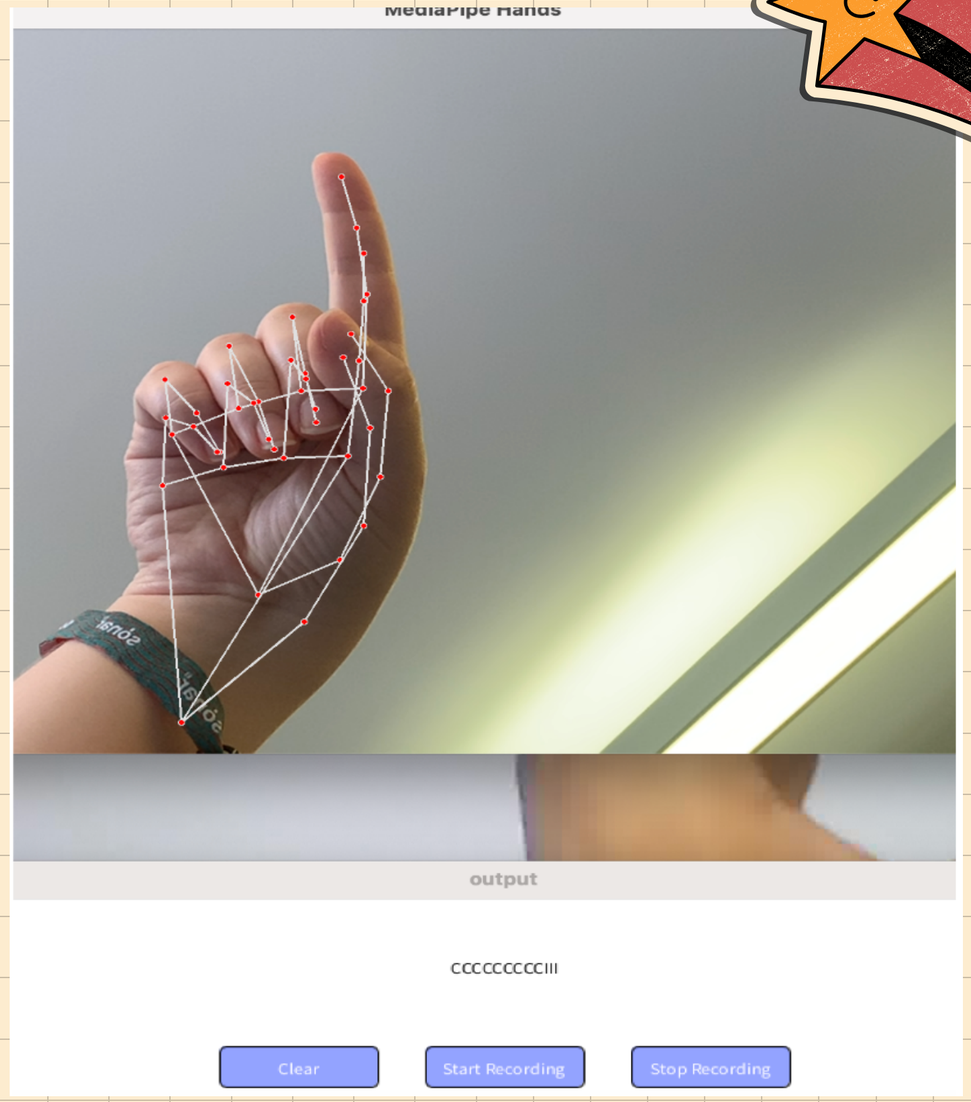
Working process

The idea is that you sign a letter individually.

The coordinates will be sent to Wekinator and it will send the number which each letter belongs to to Processing:

- A → class 1
- B → class 2
- and so on

Then Processing will map each class to the corresponding letter and it will output it in the interface



Results

- Some letters are mapped correctly, but some others need more training data in order to classify correctly

- It has the potential to become useful in video calls, for example, in zoom meetings, to be able to translate ASL language in real-time.

Thank you

good bye

Github repo: https://github.com/ObiWxnKenxbi/TranscribeASL

Dataset used: https://www.kaggle.com/datasets/ardamavi/sign-language-digits-dataset