**Face Recognition Algorithm Documentation**

This guide explains how to set up and use the provided face detection and recognition algorithm for seamless integration into your project.

**Installation Instructions**

1. **Install Required Libraries**Ensure you have Python installed. Use the following commands to install the required dependencies:
2. ***pip install face\_recognition opencv-python***
3. ***pip install opencv-python-headless numpy dlib***
4. **Add the Code File**Place the provided code file (face\_rec.py) into your project directory.

**How to Use the Algorithm**

**Step 1: Import and Initialize**

To begin, import the class and create an object:

***from face\_rec import Facerec***

***sfr = Facerec()***

**Step 2: Load Images**

Store the images to be recognized in a designated folder and load them into the model using:

***sfr.load\_encoding\_images("path-to-your-folder")***

**Step 3: Run the Algorithm**

Run the face detection and recognition process using the run\_camera() method:

***sfr.run\_camera()***

**Step 4: To stop the camera**

To stop the camera, press **Esc**.

**Customizing the Output**

The run\_camera() method offers several optional parameters for customization:

1. **color**
   * **Description:** Sets the bounding box color.
   * **Default:** (0, 0, 200) (Red).
   * **Example: *color=(0, 255, 0)*** for a green box.
2. **thickness**
   * **Description:** Defines the thickness of the bounding box.
   * **Default:** 2.
3. **text\_color**
   * **Description:** Sets the color of the label text.
   * **Default:** (0, 0, 200) (Red).
   * **Example*: text\_color=(255, 255, 255)*** for white text.
4. **text\_thickness**
   * **Description:** Specifies the thickness of the label text.
   * **Default:** 2.
5. **text\_size**
   * **Description:** Adjusts the size of the label text.
   * **Default:** 1.

**Example usage with custom parameters:**

***sfr.run\_camera(color=(0, 255, 0), thickness=3, text\_color=(255, 255, 255), text\_thickness=2, text\_size=2)***

This documentation provides a complete setup and customization guide for the face recognition algorithm. Follow these steps to integrate it into your project effectively!

**If you have any query to set up the file and to adapt the code, feel free to contact me.**