Spoof Detection Project

Welcome to the Spoof Detection Project! This project is designed to register and recognize images using a simple API setup. Follow the steps below to set up and run the code on your local machine.

Prerequisites

Before you begin, ensure you have the following installed:

- Python (version 3.12 or higher)
- Visual Studio Code (or any preferred code editor)
- [Postman](#) for API testing

Run Steps

Step 1: Open the Code

1. Launch **Visual Studio Code** (VS Code).
2. Open the main.py file located in the project directory.

Step 2: Configure IP Address and Port

1. Scroll to the bottom of the main.py file.
2. Locate the section where the **IP address** and **port number** are defined.
3. Update these values based on your PC's configuration:
   - **Default Example**: 192.168.0.160 (IP) and 1200 (Port).
   - **How to Find Your IP Address**:
     - Open the **Command Prompt** (CMD) on your PC.
     - Type ipconfig and press Enter.
     - Look for the IPv4 Address under your active network connection (e.g., 192.168.x.x).
4. Save the changes to main.py.

Step 3: Set Up Postman for Registration

1. Open **Postman**.

2. Set the request method to **POST**.

3. Enter the following URL:

http://192.168.0.160:1200/register

(Replace 192.168.0.160 and 1200 with your configured IP and port if different.)

Step 4: Configure the Request Body

1. In Postman, go to the **Body** tab.

2. Select the **form-data** option.

3. Add the following key-value pairs:

Key	Value	Notes
collectionId	DEMO1	Collection identifier
threshold	0.5	Recognition threshold
image	*(Select File)*	Upload an image file
name	*(Type a name)*	Name for the image

4. Double-check your entries against the provided screenshot (if available).

Step 5: Register the Image

1. Click the **Send** button in Postman.

2. The code will execute, and the image will be registered in the system.

3. Check the response in Postman for confirmation.

Step 6: Test Image Recognition

1. In Postman, update the URL to:

   http://192.168.0.160:1200/recognize

   (Ensure the IP and port match your configuration.)

2. Go to the **Body** tab and keep the **form-data** settings.

3. Set the image key and upload a new image file for recognition (leave other fields as optional).

4. Click the **Send** button.

5. The response will display the recognition result based on the accuracy threshold.

Troubleshooting

- **Port Conflict**: If the port is in use, try a different port number (e.g., 1201) and update it in both main.py and Postman.

- **IP Issues**: Ensure your IP address matches your local network configuration.

- **No Response**: Verify that main.py is running in VS Code before sending requests in Postman.

Notes

- The current setup assumes a local server running on your machine.

- Adjust the threshold value (e.g., 0.5) to fine-tune recognition accuracy as needed.

Contributing

Feel free to fork this project, submit issues, or contribute enhancements via pull requests!