

# Data Upload and Load Guide

## 1. Local Data Upload

### (1) Image Files

Use Python's `os` and `Pillow` libraries to load images from a folder.

Example:

```
import os

from PIL import Image

image_folder = "./images"

image_files = [os.path.join(image_folder, f) for f in os.listdir(image_folder) if f.endswith(".jpg")]

images = [Image.open(file) for file in image_files]

print(f"Loaded {len(images)} images.")
```

### (2) CSV Files

Use the `pandas` library to load CSV files.

Example:

```
import pandas as pd

csv_path = "./data.csv"

data = pd.read_csv(csv_path)

print(data.head())
```

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## 2. Data from Web

### (1) Downloading Image Files

Use Python's `requests` or `wget` to download images.

Example:

```
import requests

url = "https://example.com/image.jpg"

response = requests.get(url)

with open("image.jpg", "wb") as f:

    f.write(response.content)
```

### (2) Downloading CSV Files

If a CSV file is hosted online, it can be loaded directly with `pandas`.

Example:

```
import pandas as pd

url = "https://example.com/data.csv"

data = pd.read_csv(url)

print(data.head())
```

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### 3. Server Connection

Use `scp` to upload local files to a remote server.

Example:

```
scp ./data.csv username@server_ip:/path/to/target/folder
```

Then access the data on the server in Python as you would locally.

### 4. Google Drive Data Access

If your data is in Google Drive, use the `gdown` library to download shared files.

Example:

```
pip install gdown
```

```
import gdown
```

```
url = "https://drive.google.com/uc?id=FILE_ID"
```

```
output = "data.csv"
```

```
gdown.download(url, output, quiet=False)
```