Face Detection with OpenCV

Description

The Face Detection project is a Python-based application that uses OpenCV to detect faces in images. The script reads an image, converts it to grayscale, and then uses the Haar Cascade classifier to identify faces. The detected faces are highlighted with rectangles.

Prerequisites

Before running this project, ensure you have the following:
- Python 3.x installed.
- OpenCV library (`opencv-python` package).
- NumPy library.
- Haar Cascade frontal face XML file.

Install the required packages using pip:

```bash
pip install numpy opencv-python
```

Usage

1. Place an image with faces in a known directory.
2. Update the image path and Haar Cascade XML path in the script.
3. Run the script. Detected faces will be shown in a window.

Running the Script

Navigate to the script's directory and run:

```bash
python face_detection.py
```

Ensure the paths to the image and Haar Cascade XML file are correctly set in the script.

Contributing

Contributions to enhance this face detection script are welcome. Follow these steps to contribute:
1. Fork the project.
2. Create your feature branch (`git checkout -b feature/YourFeature`).
3. Commit your changes (`git commit -m 'Add some YourFeature'`).
4. Push to the branch (`git push origin feature/YourFeature`).
5. Open a pull request.

Contact

For any queries or feedback, please open an issue in the project repository.