# **Gender & Age Detection App**

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#### Demo

Upload any photo, and the app will:

- Detect all visible faces.
- Predict each person's gender and age group.
- Show prediction confidence levels.
- Annotate and display the image.

## **Models Used**

Uses OpenCV DNN module with pre-trained models:

- Face Detector: opencv\_face\_detector\_uint8.pb + opencv\_face\_detector.pbtxt
- Age Detector: age\_net.caffemodel + age\_deploy.prototxt
- Gender Detector: gender\_net.caffemodel + gender\_deploy.prototxt

#### **Folder Structure**

```
app.py
models/
opencv_face_detector.pbtxt
opencv_face_detector_uint8.pb
age_deploy.prototxt
age_net.caffemodel
gender_deploy.prototxt
gender_net.caffemodel
requirements.txt
README.md
```

## Installation

1. Clone the repository:

# **Gender & Age Detection App**

git clone https://github.com/your-username/gender-age-detection-app.git cd gender-age-detection-app

2. (Optional) Create and activate a virtual environment:

```
python -m venv venv source venv/bin/activate # or on Windows: venv\Scripts\activate
```

3. Install dependencies:

```
pip install -r requirements.txt
```

4. Add the pre-trained models in the 'models/' folder.

## **Running the App**

Run the app with:

streamlit run app.py

Opens at http://localhost:8501

## Sample Labels

- Age Buckets: (0-2), (4-6), (8-12), (15-20), (21-24), (25-32), (38-43), (48-53), (60-100)
- Gender Buckets: Male, Female

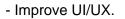
#### **Notes**

- Make sure faces are clearly visible.
- Works on CPU.
- For educational/demo use.

## **Future Improvements**

- Add webcam input.

# **Gender & Age Detection App**



- Docker support.
- Deploy to cloud.

# License

This project is open-source under the MIT License.

# Acknowledgements

- OpenCV DNN Face Detection
- Pre-trained models from OpenCV GitHub