Project Setup Guide

Install dependencies

pip install -r requirements.txt

If you need to download MediaPipe models

python -c "import mediapipe as mp; mp.solutions.face_mesh.FaceMesh()"

3. Training the Model

Basic Training:

python train.py --real-dir data/real_videos --fake-dir data/fake_videos

Advanced Training Options:

#1 Train with SVM classifier

python train.py --real-dir data/real_videos --fake-dir data/fake_videos --model-type svm

#2 Custom model save path

python train.py --real-dir data/real_videos --fake-dir data/fake_videos --model-path models/my_classifier.pkl

#3 Skip visualizations (faster)

python train.py --real-dir data/real_videos --fake-dir data/fake_videos --no-visualizations

5. Making Predictions

Single Video Prediction:

Basic prediction

python predict.py --video test_video.mp4

With detailed HTML report

python predict.py --video test_video.mp4 --save-report

With real-time visualization

python predict.py --video test_video.mp4 --visualize

All options combined

python predict.py --video test_video.mp4 --save-report --visualize --model models/classifier.pkl

Analyze all videos in a directory

python predict.py --batch-dir test_videos/ --output batch_results.json

Backend run

venv\Scripts\activate

uvicorn main:app –reload

Frontend run

npm run dev