CRIMINAL IDENTIFICATION IN VIDEO FOOTAGES

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ABOUT US

Rishibalaji R

Final year – CSE

Work experience:

- Ex-intern at Wipro GE Healthcare Private Limited
- Our team (Extremist) Won 2nd prize in the hackathon conducted by Derbi foundation and IIT bombay
- Intern at Pragyan.ai

Indra Kumar K

Pre-Final year – CSE

Work Experience:

- Ex-intern at Wipro GE Healthcare Private Limited
- Our team (Extremist) won 2nd prize in the hackathon conducted by Derbi foundation
- Voidhacks2.0 (winner in AI/ML theme)
- Intern at Pragyan.ai

Hari Krishna M

Pre-Final year – CSE

Our team (Extremist) won 2nd prize in the hackathon conducted by Derbi foundation

Intern at Pragyan.ai

Voidhacks2.0 (winner in AI/ML theme)

PROBLEM STATEMENT

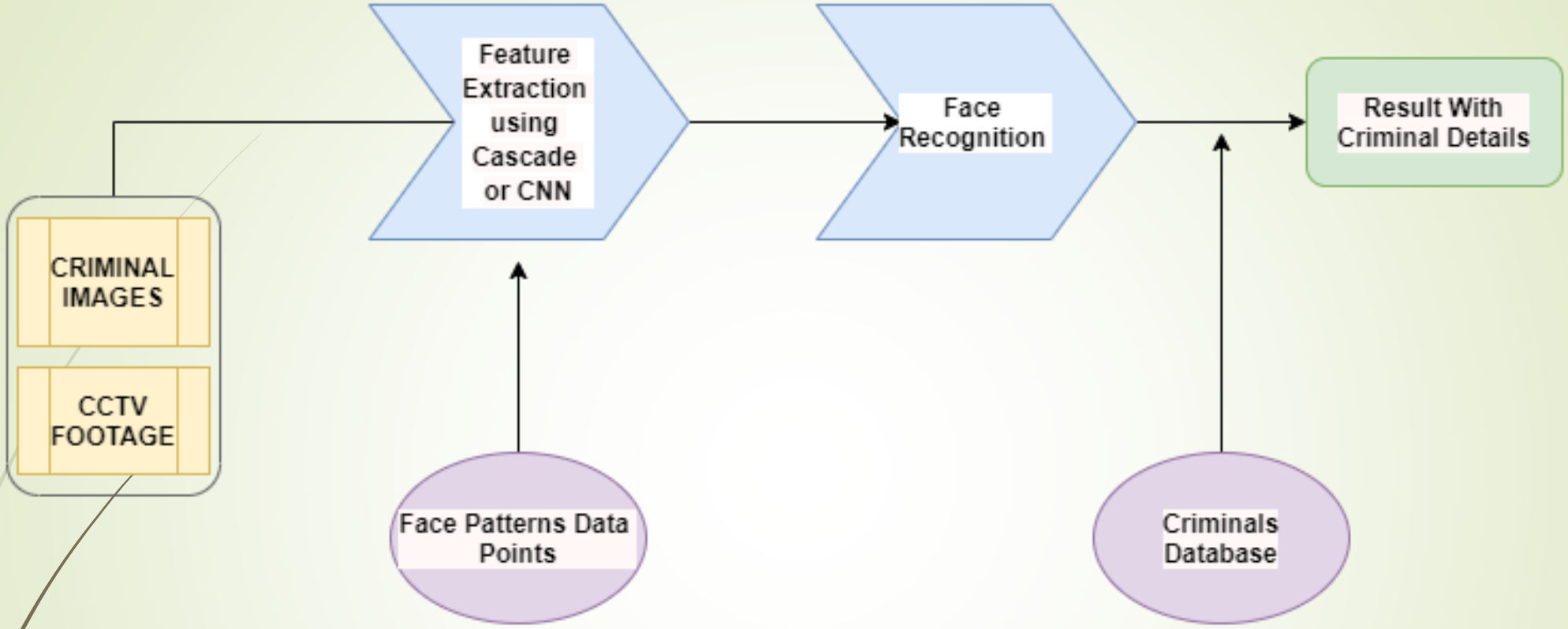
Criminal identification is the most critical task for the Police who are finding the criminals, but it is the difficult and most time-consuming task as they have to find it everywhere from CCTV Recorded video footages. It will be more difficult in cities or public places with high people density. In some cases, manual type of identification gives chance for getting more information related to criminals. In Manual Identification System (MIS), identification is done by the Police officers searching them at public places. It takes a lot of time to give the proper attention and it also has the chances of skipping criminals as they will be alerted by seeing cops easily gets escape from there. Since the MIS is in the process of taking more time and we will not properly focus on everyone.

PROPOSED SOLUTION(INTRO)

Our proposed solution helps to optimize the criminal identification and thereby reducing time for analysing video footages. Using the previously captured faces and criminal's images that are available in the police station, the criminal face recognition system of can be implemented. Using technology, this idea will add plus point in the current system while bringing criminals spotting to a whole new level by automating tasks. The captured images of the person coming to that public place in the footages get compared with the criminal data we have in our database. If any person's face from footage matches, the system will display their image and the on the system screen and will give the message with their name that the criminal is found and time stamp in the form of JSON response.

PROPOSE SOLUTION(OVERVIEW)

- Criminal registration – Initially police register criminal photo and their info to our system which it in the database so that we can compare the given images with database and return the results if face is found in the footage.
- CCTV Footages – In order to find the criminal, recorded CCTV videos is system's primary requirement.
- If a given image face is found from the video footage that criminal info generated from the database or return result as "Face not found"



FLOW DIAGRAM

SOFTWARE TOOLS

- OpenCV(Cascade classifier).
- Deep learning (Convalutional Neural Network).
- face_recognition

SYSTEM WORKFLOW

- First user have to upload video and criminal image into the system
- Feature extraction will be done to the image in order to find patterns with the faces present in the image.
- After that, Face recognition system check whether the image face is present in the given recorded footage using Deep learning (CNN) algorithms
- If face found in the footage then returns timestamp and details of the criminal.

THANK YOU