

IDENTIFYING LEADING CASTS IN MOVIES USING NEURAL NETWORK MODELS

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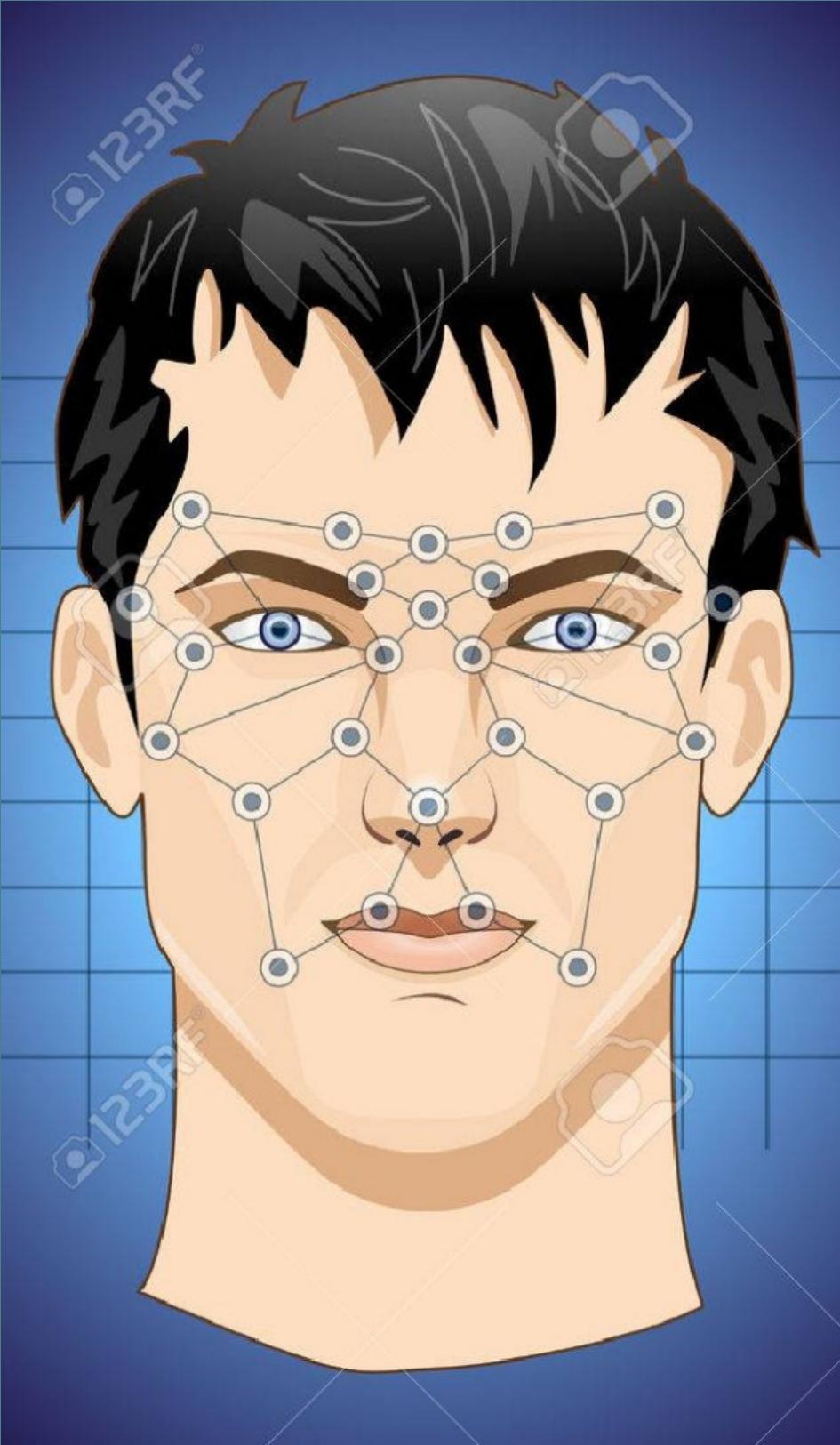
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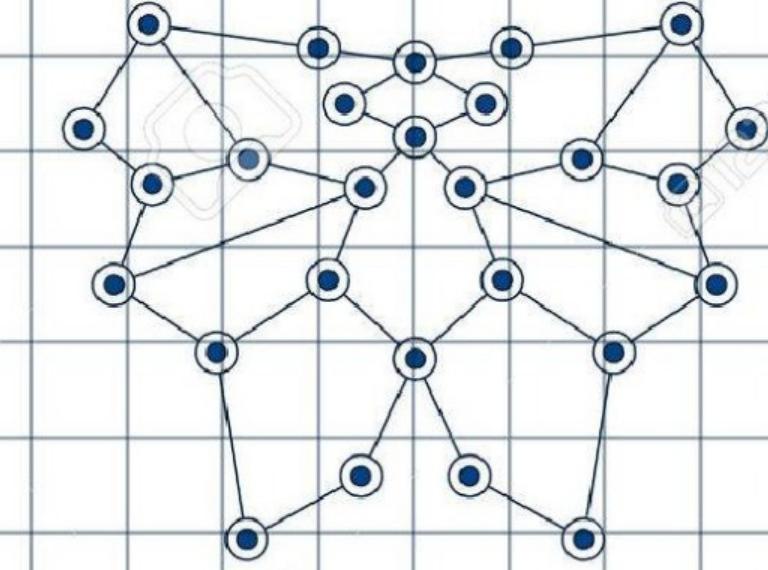
References

OBJECTIVE

The Objective of our Project is to design a software that can detect and recognize human faces from a Film.



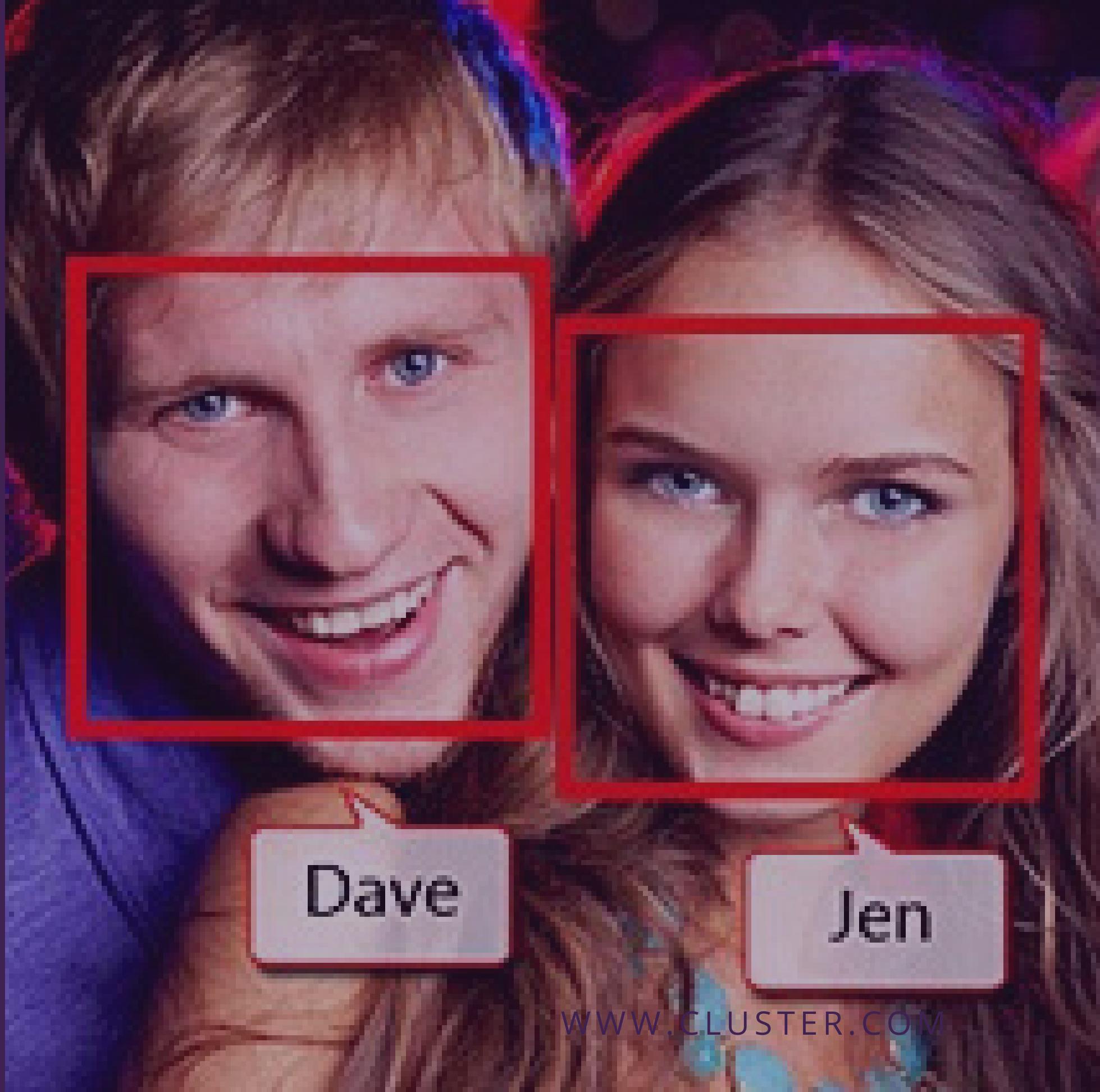
FACE
RECOGNITION



PROCESSING

MOTIVATION

Recognizing human faces in wild is emerging as a critically important and technically challenging computer vision problem. With a few notable exceptions, most previous works in the last several decades have focused on recognizing faces captured in a laboratory setting. However, with the introduction of databases, face recognition community is gradually shifting its focus on much more challenging unconstrained settings.



WHAT WE PLAN TO DO

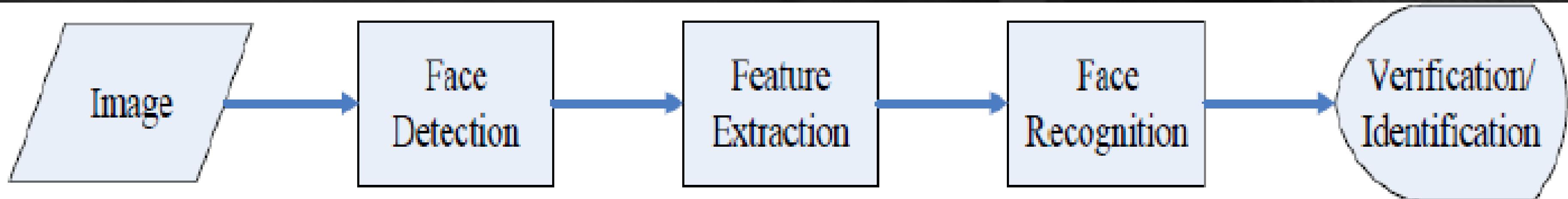
Our Plan is to create a database having images of famous Indian actor and actress. We will then take the screenshots of movies at the fixed time interval and will match the screenshots with our database and predict the lead actor and actress in the film. Our database consists of faces of many known actors collected from their known movies. Unlike old methods which used face detectors to automatically detect the faces from the web collection, images in our database are generated manually from the movies. This will result in a high degree of variability (pose, expression, illumination, age, makeup) which one could ever see in the natural world.

HOW WE PLAN TO DO

OUR METHOD COMES WITH COLLECTING DETAILED ANNOTATION IN TERMS OF AGE, BOUNDING BOX, MOVIE RELEASE, EXPRESSION, GENDER, POSE, MAKEUP, AND POSSIBLE KIND OF OCCLUSION. THE DATABASE IS DESIGNED THROUGH FOLLOWING STEPS:

- SELECTION OF MOVIES AND ACTORS
- MANUALLY PREPARING THE DATABASE OF SELECTED ACTOR/ACTRESS
- PRUNNING OF DATABASE

CONT'D.



Proposed Method

- SELECTION OF FRAMES FROM VIDEOS
- CROPPING AND DETECTION OF FACES
- PRUNING OF THOSE IMAGES IN WHICH FACES COULD NOT BE DETECTED
- MATCHING THE FACES WITH THE IMAGES PRESENT IN THE DATABASE
- GIVING ANALYSIS OF THE LEAD CAST PRESENT IN THE FILM

BENCHMARKS

METHOD

ACCURACY%

SIGHTHOUND

99.2

DRM

89.9

SSDML

88.8

RNP

88.6

MSSRC

85.6

FACE++

84.1

SANP

80.4

OPENCV

49.6

FUTURE EXTENSION

1. REALTIME CCTV/ANY LIVE STREAMING DEVICE FOOTAGE ANALYSIS FOR CONVICT IDENTIFICATION
2. IDENTIFICATION OF LOST PERSONS
3. CROWD DEMOGRAPHIC SURVEY

Technology Used

- PYTHON
- OPEN CV
- TENSORFLOW
- SCIKIT-IMAGE
- PANDAS
- KERAS
- MATPLOLIB



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THANK YOU

