http://www.youtube.com/watch?v=fCu4_mhcdJg -

Automatic real-time face detection and tracking

Assignment for

Application of Computer Vision

2015

Objectives

- Face Detection (40%)
  - Single Face
  - Multiple Faces
- Face Tracking (40%)
  - Single face tracking
  - Multiple face tracking
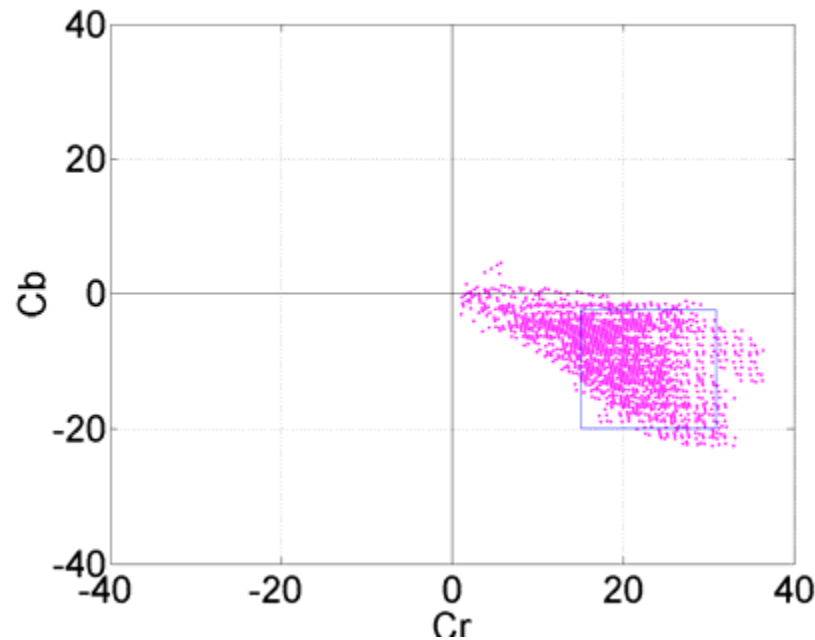- Face recognition (20%)
  - Each team member

Assessed Performance

- Success Rate
  - Background Complexity
  - Number of faces
  - Change of Position, Scale and Rotation
  - Occultation
- Frame Rate
- Added Values (multi-solution, new functions…)

Help you start

Colour Segmentation

- Detection of skin colour in colour images is a very popular and useful technique for face detection.
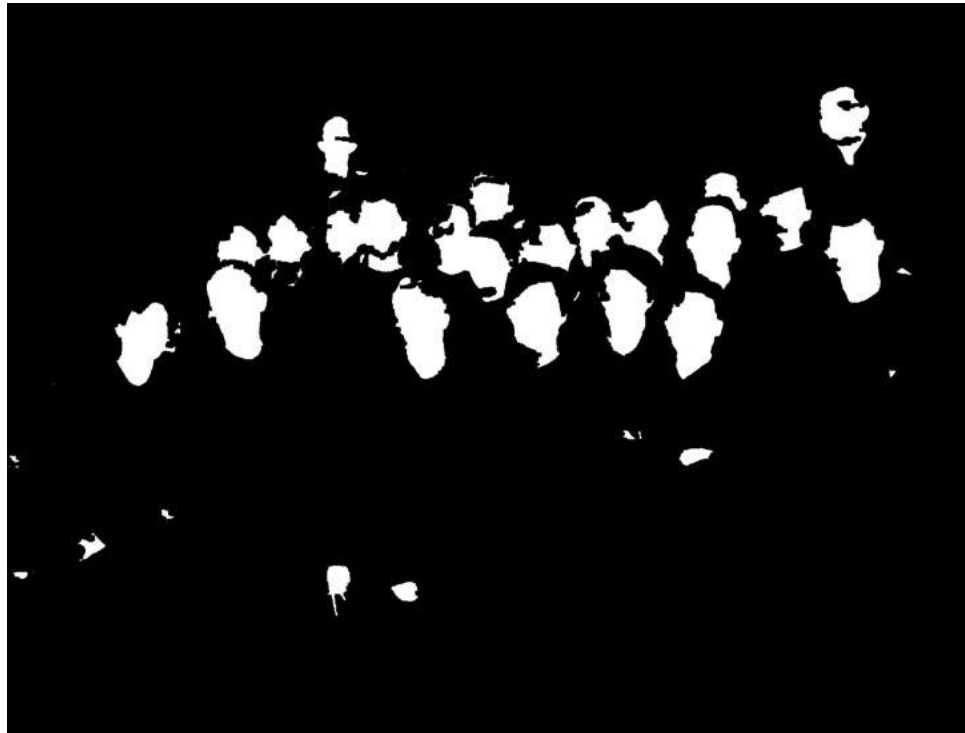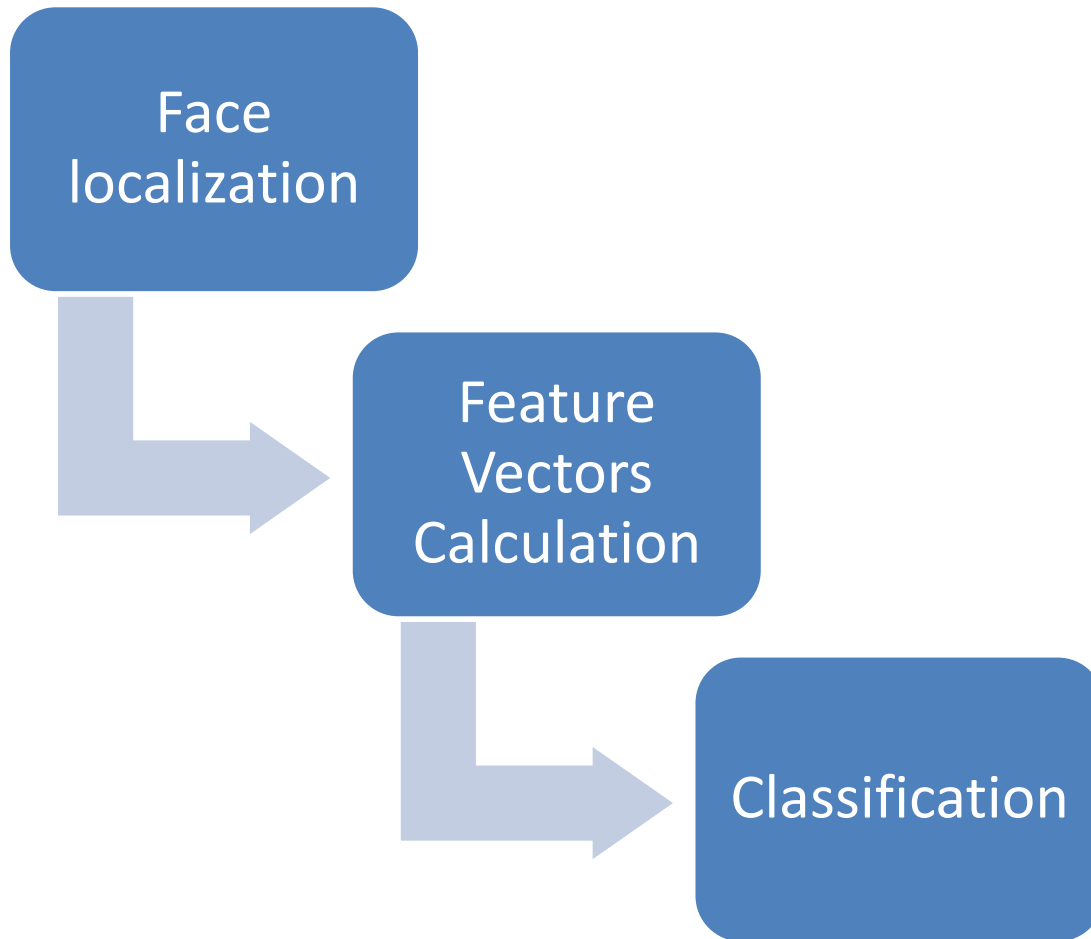
Colour Segmentation

Image Segmentation

- Separate the image blobs in the colour filtered binary image into individual regions

Now you are able to detect single or multi face

Face Recognition

Face localization

Feature Vectors Calculation

Classification

Face Tracking

- Image Differencing?

- Kalman Filter?

- Other methods?

Need fast!