# Real-time Face Detection and Classification from YouTube videos using Matlab, Python & OpenCV

#### Donald Shenaj

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#### Face Detection - Viola and Jones algorithm

[1]P. Viola, M. Jones, Rapid Object Detection using a Boosted Cascade of Simple Features, International Conference on Computer Vision, 2001

## Face Classification - CNN design

Matlab

cnn structure

## Face Classification - CNN Training

#### Training parameters:

- Epochs
- Batch size
- Accuracy

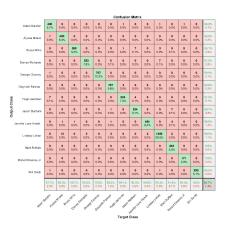


Figure: Confusion matrix of the CNN

# Video Processing

- Python
- OpenCV
- VidGear

#### **Detection and Classification**

## Conclusions