Face Detection and Classification for video signals 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

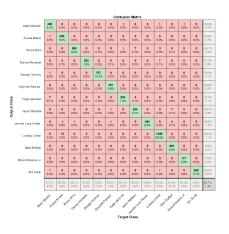


Figure: Confusion matrix of the CNN

Video Processing

- Python
- OpenCV
- VidGear

Detection and Classification

Conclusions