



Input video stream

Features



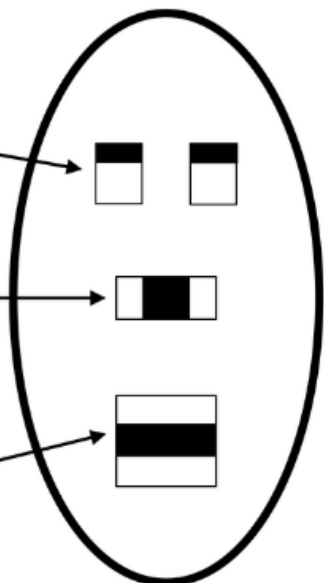
Eyes



Nose



Mouth



A Theoretical
Face Model

Haarscade Frontal Face Detector

Pixels

72 18 29 67 47 43 43 21 1 0 ...



/ 255

.28 .07 .11 .26 .18 .16 .16 .08 .00 0 ...



Reshape(48,48)

.28 .07 .11 .26 .18
.16 .16 .08 .09 .98
.64 .43 .72 .29 .23
.22 .90 .28 .07 .11
.26 .18 .16 .16 .08
.09 .98 .64 .43 .72
.29 .23 .22 .90 .32

48

48



Face Expression Recognition
CNN model base on the
Xception Architecture



Output video
stream & file