

Stage 1

Sliding Window

Label Modification

AUs Detection

Ground Truth

AUs Matrix

Stage 2

CONV N*N

Max Pooling

CONV M*M

Max Pooling

CONV P*P

Max Pooling

Concatenate

Concat-CNN Model

0
1
1
.
.
1
0
0

Loss Calculation

Flatten Dropout and Sigmoid

0.1
0.2
0.9
.
0.1
.
0.9
0.2
0.1

Stage 3

Label Modify Strategy

Predicted Onset

0
0
1
.
1
.
1
0
0

Predicted Offset

