Feature extraction

Classification

32, 5x5   2x2   32, 3x3   2x2   32, 3x3   2x2

Morphology representation

OR

Location representation

OR

Combined representation

Conv. layer 1   Pooling layer 1   Conv. layer 2   Pooling layer 2   Conv. layer 3   Pooling layer 3

Input 2 (gender)

Flatten input

Flatten layer

MERGED INPUTS

Node 1   Node 1
Node 2   Node 2
Node 3   Node 3
Node 30   Node 30
Node 31   Node 31
Node 32   Node 32

OUTPUT

Pain duration

OR

Pain intensity

Dense layer 1   Dense layer 2   Dense layer 3   Output layer

Dropout = 50%

ReLu activation function

Sigmoid activation function