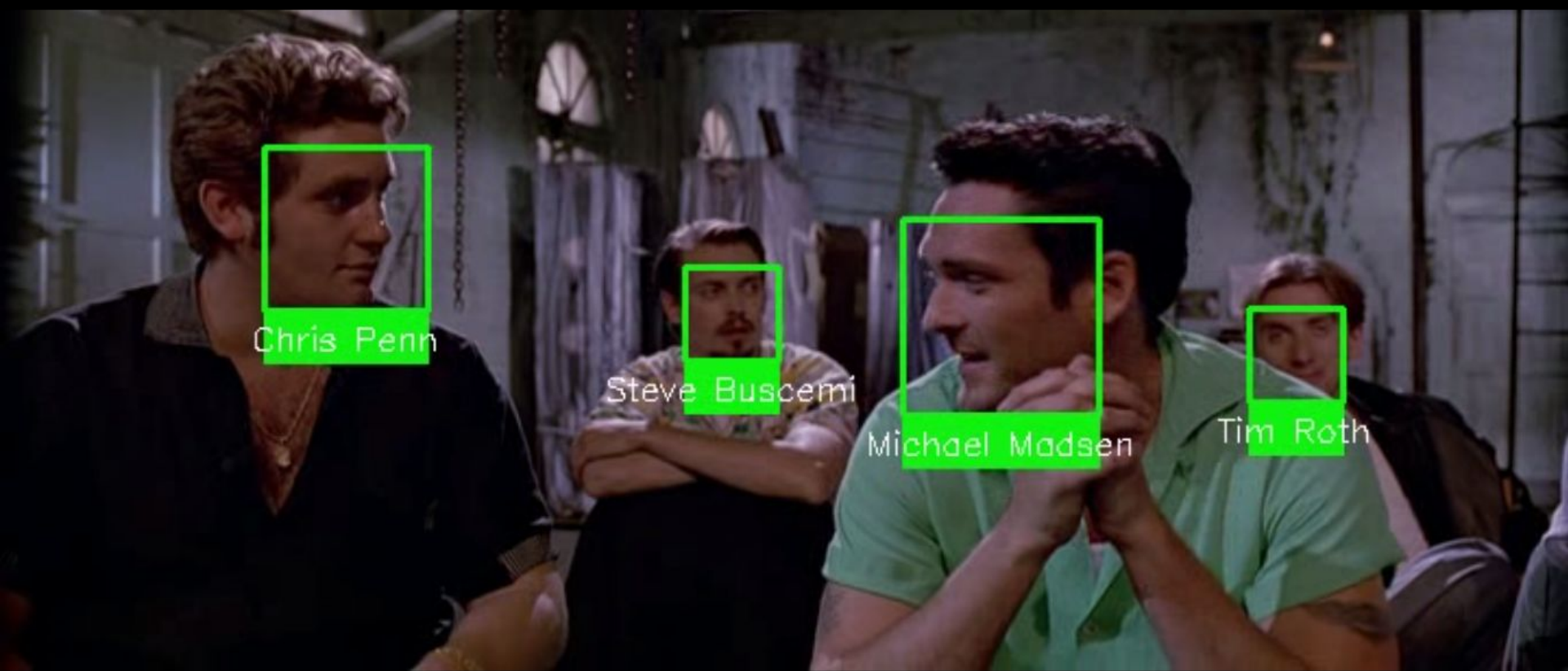




Face recognition in movies

Yevhen Kuzmovych
kuzmoyev@fit.cvut.cz



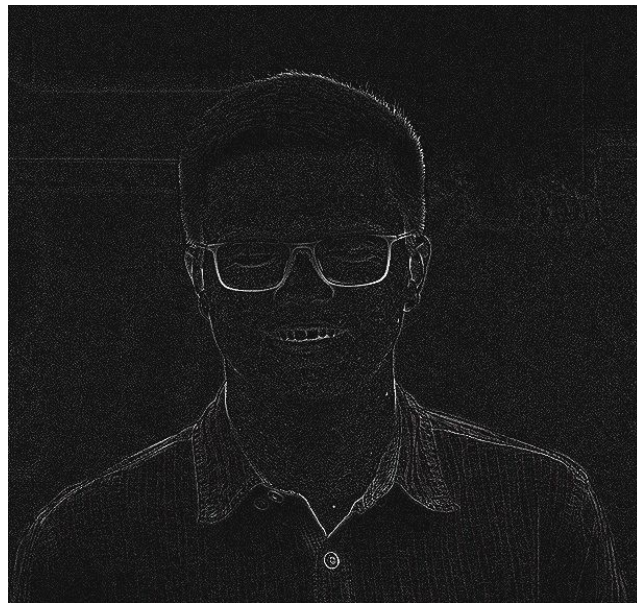
Chris Penn

Steve Buscemi

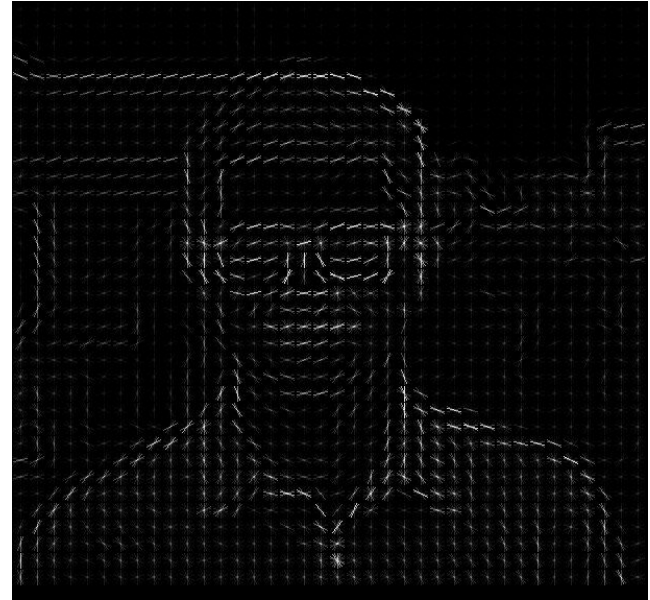
Michael Madsen

Tim Roth

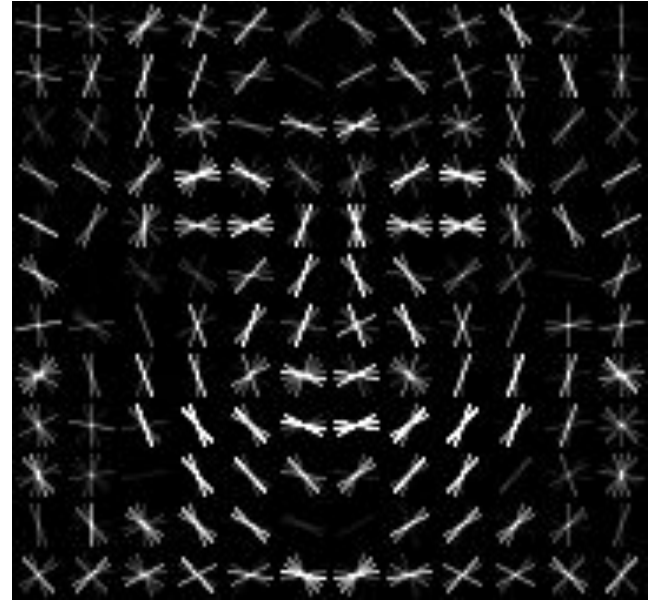
Gradient domain

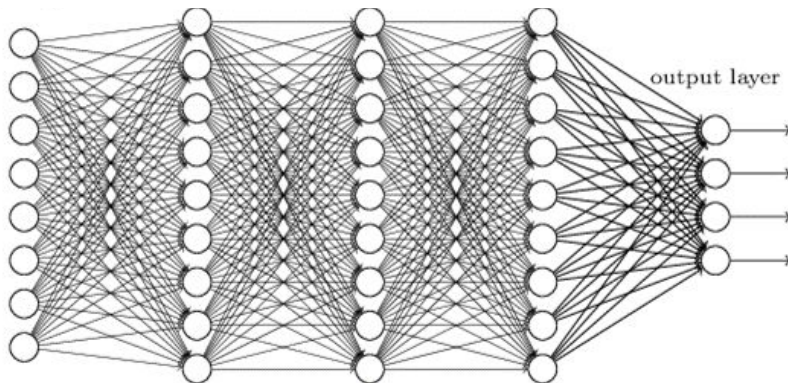
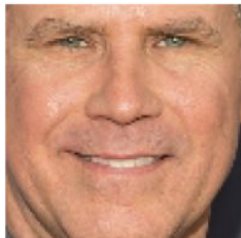


Histogram of oriented gradients



Face detection

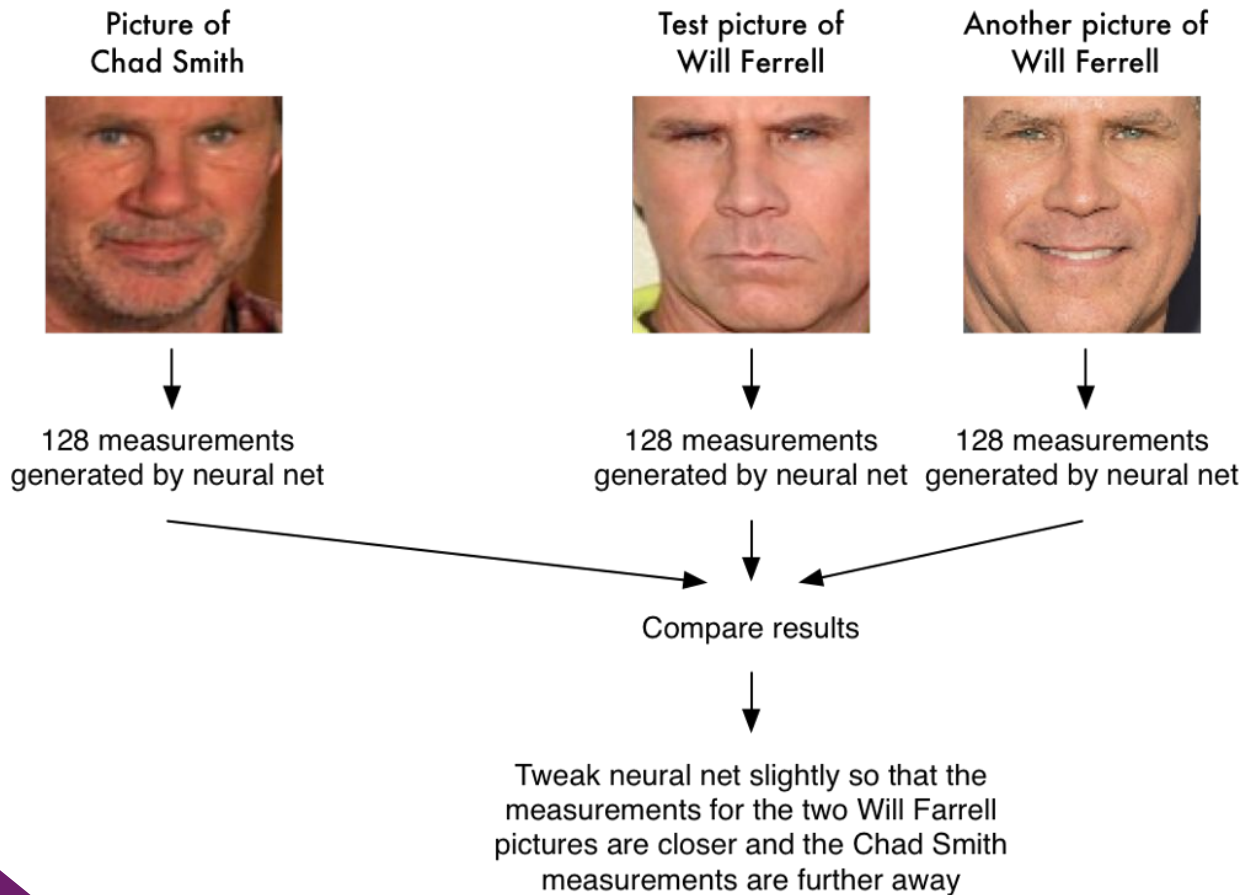




128 Measurements Generated from Image

0.045223236083984	-0.1281466782093
0.060309179127216	0.17521631717682
-0.01981477253139	0.10801389068365
0.065554238855839	0.0731306001544
0.1226262897253	-0.029626874253154
0.036750309169292	-0.15958009660244
0.14114324748516	-0.031351584941149
-0.061901587992907	-0.15042643249035
-0.10568545013666	-0.12728653848171
-0.074287034571171	-0.065365232527256
0.0061761881224811	0.14746543765068
-0.21055991947651	0.0041091227903962
0.11345765739679	0.021352224051952
0.19372203946114	-0.086726233363152
0.084853030741215	0.09463594853878
0.0064811296761036	0.21180312335491
-0.16582328081131	-0.035577941685915
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-0.059730969369411	-0.070026844739914
0.11478432267904	-0.089621491730213
0.14841195940971	0.078333757817745
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0.037022035568953	0.11009479314089
0.12788131833076	0.18632389605045
-0.094398014247417	-0.11768248677254
-0.10034311562777	-0.040977258235216

A single 'triplet' training step:





Brandon Amos


@brandondamos

Follow



Replying to @ageitgey

Caveat: Our "small" dataset with 500k faces used for all our (reasonably accurate) pre-trained models takes 24 hrs. \uparrow data = \uparrow time

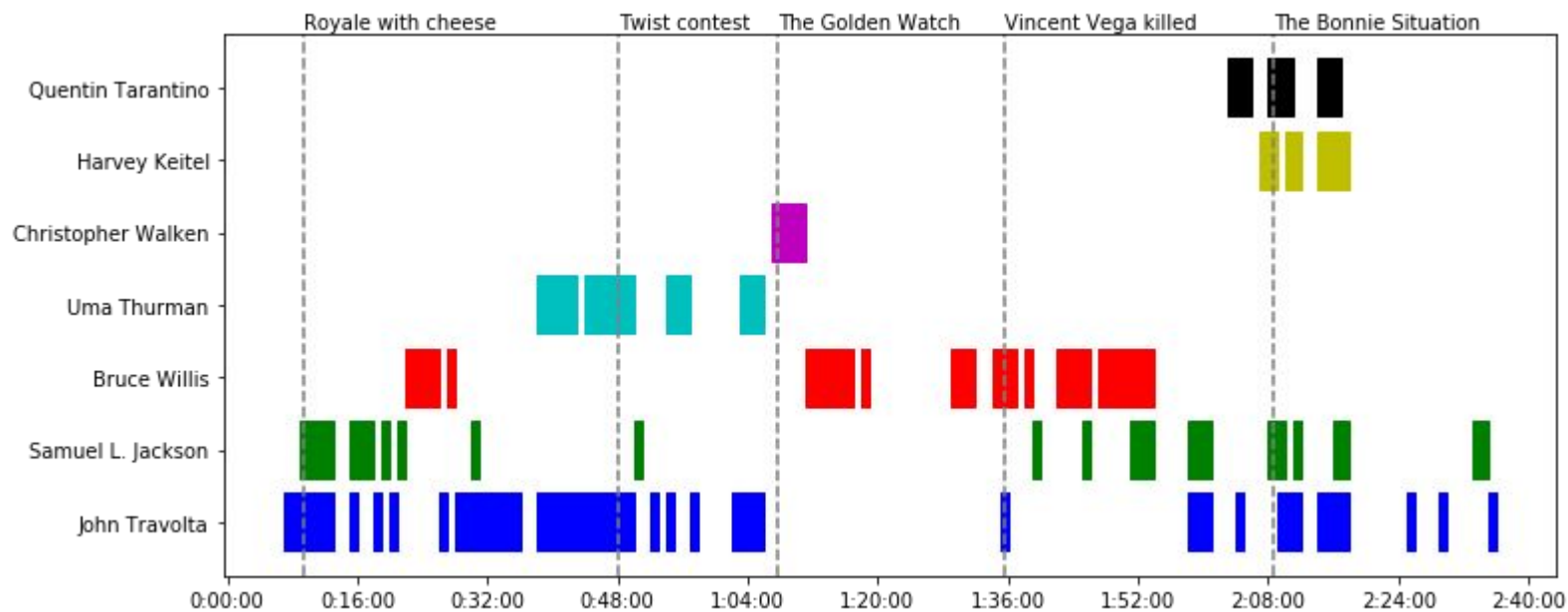


layer	size-in	size-out
conv1	$220 \times 220 \times 3$	$110 \times 110 \times 64$
pool1	$110 \times 110 \times 64$	$55 \times 55 \times 64$
rnorm1	$55 \times 55 \times 64$	$55 \times 55 \times 64$
conv2a	$55 \times 55 \times 64$	$55 \times 55 \times 64$
conv2	$55 \times 55 \times 64$	$55 \times 55 \times 192$
rnorm2	$55 \times 55 \times 192$	$55 \times 55 \times 192$
pool2	$55 \times 55 \times 192$	$28 \times 28 \times 192$
conv3a	$28 \times 28 \times 192$	$28 \times 28 \times 192$
conv3	$28 \times 28 \times 192$	$28 \times 28 \times 384$
pool3	$28 \times 28 \times 384$	$14 \times 14 \times 384$
conv4a	$14 \times 14 \times 384$	$14 \times 14 \times 384$
conv4	$14 \times 14 \times 384$	$14 \times 14 \times 256$
conv5a	$14 \times 14 \times 256$	$14 \times 14 \times 256$
conv5	$14 \times 14 \times 256$	$14 \times 14 \times 256$
conv6a	$14 \times 14 \times 256$	$14 \times 14 \times 256$
conv6	$14 \times 14 \times 256$	$14 \times 14 \times 256$
pool4	$14 \times 14 \times 256$	$7 \times 7 \times 256$
concat	$7 \times 7 \times 256$	$7 \times 7 \times 256$
fc1	$7 \times 7 \times 256$	$1 \times 32 \times 128$
fc2	$1 \times 32 \times 128$	$1 \times 32 \times 128$
fc7128	$1 \times 32 \times 128$	$1 \times 1 \times 128$
L2	$1 \times 1 \times 128$	$1 \times 1 \times 128$



John Travolta

Samuel L. Jackson

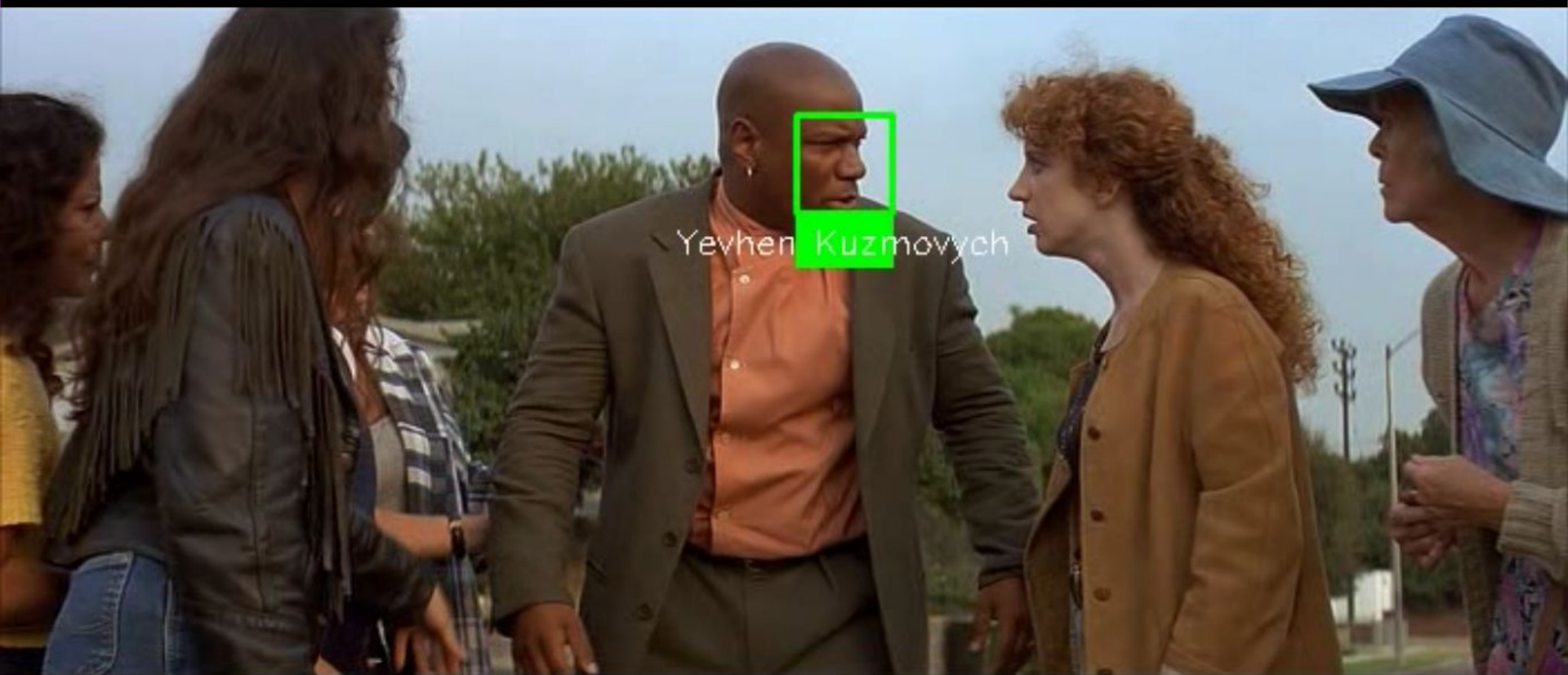




Thank you for your attention

A man with dark hair and a beard, wearing a brown trench coat, stands in a room. He is looking down with his hand near his face. The room has a white door, a large mirror reflecting a window with blinds, and three ornate gold-colored wall sconces. One sconce holds a blue and white checkered cloth, another holds a white hat, and the third is empty. A green box highlights the man's face.

Yevhen Kuzmowych



Yevhen Kuzmowych