

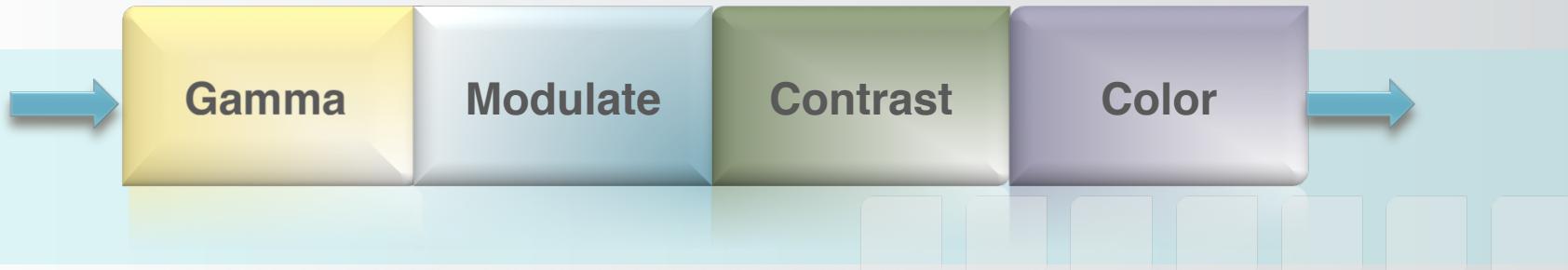


SPOOFING AGE DETECTION

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QUESTION

Can filters make you look younger?



LAP AGE PREDICTION MODEL

IMDb



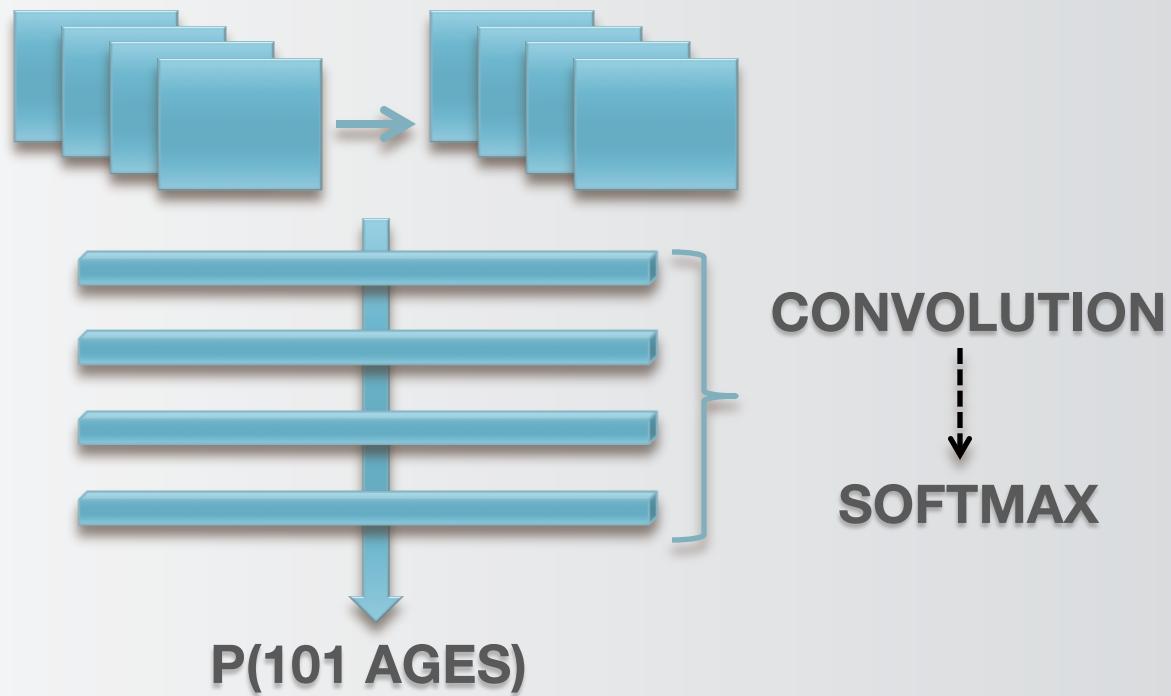
460,723 images

Wikipedia



62,328 images

VGG16 NEURAL NET

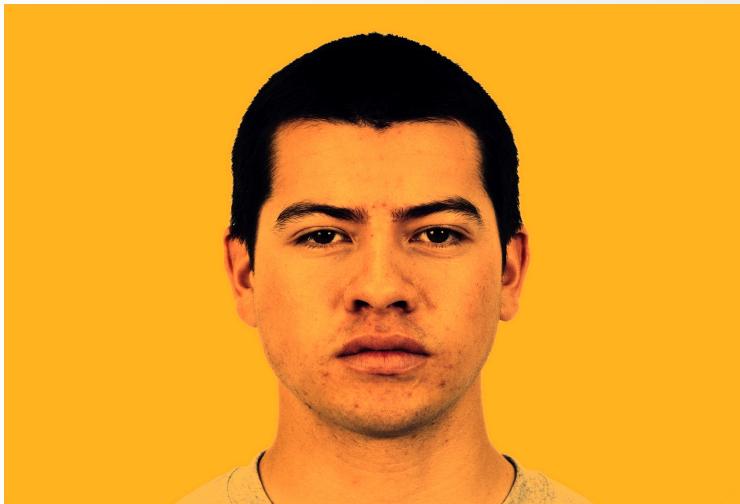


FILTERS

None



Kelvin



Lomo



Gotham



INITIAL AGE DETECTION

IMAGE DATA

Full Frontal Face JPEG

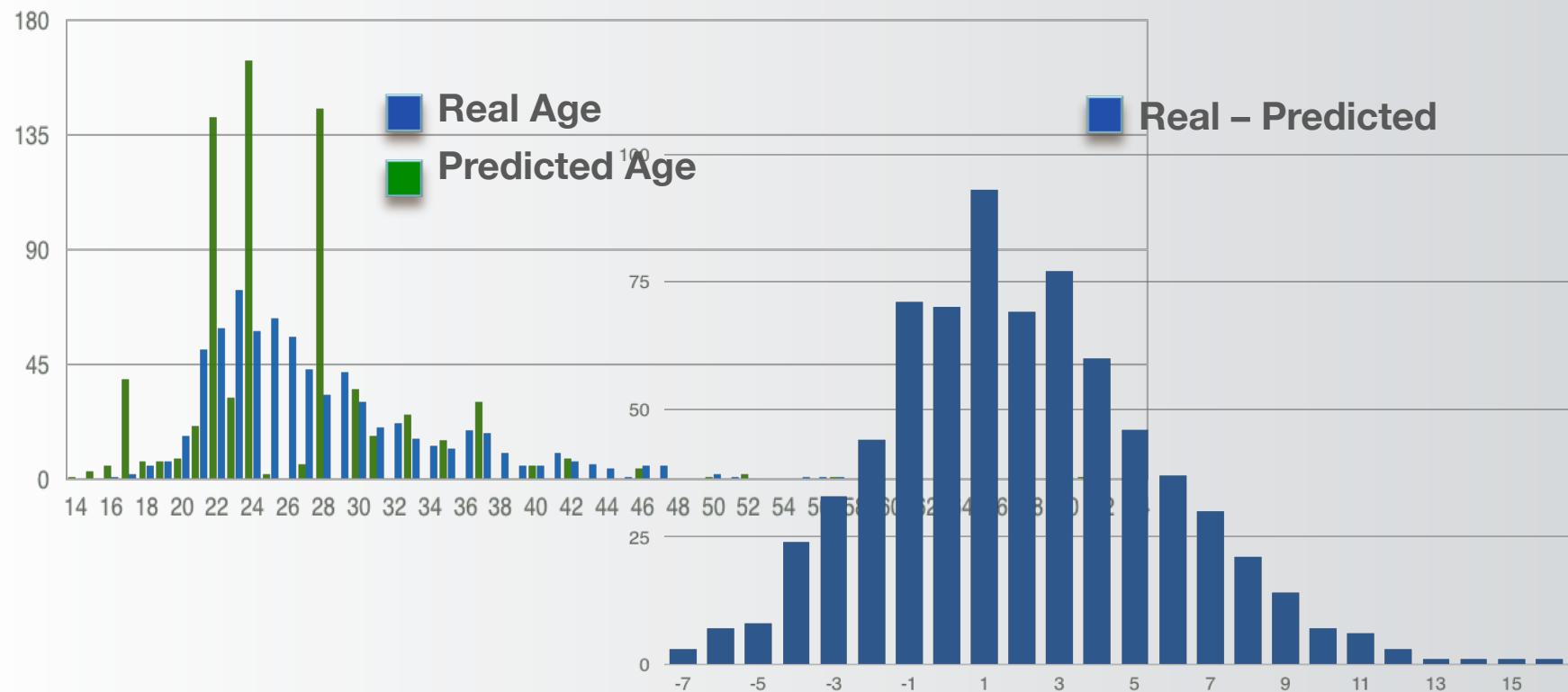
Chicago Face DB: 597

SC Face DB: 130

Total 727

METRICS

	PRED	MSE
Correct	10%	17.5 (4.2 yrs)
± 1 yr	32%	
± 2 yr	48%	
± 5 yr	82%	



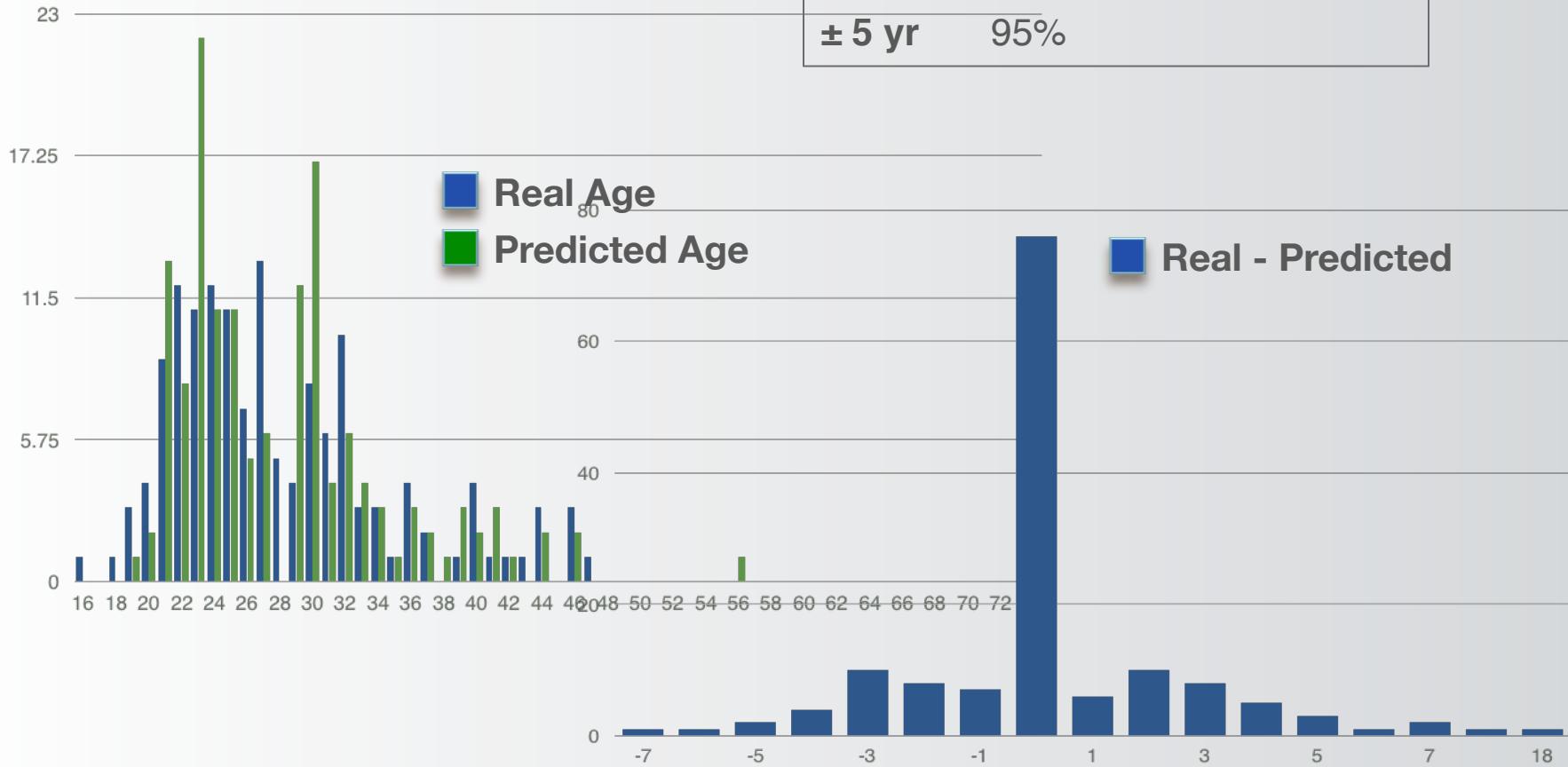
AGE DETECTION DISTRIBUTION

PREPROCESSING

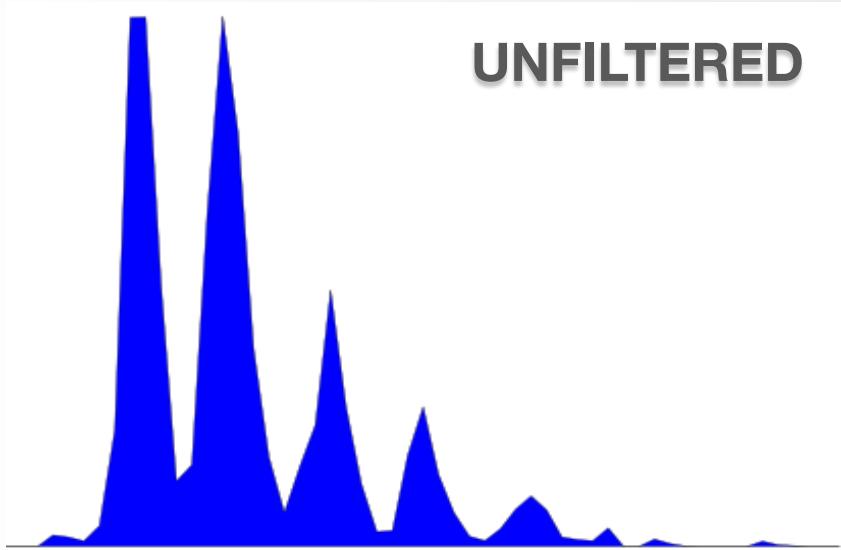
Cropped face via detection
Resize: 3x227x227
Flip Horizontally: 2x727 = 1454

CV METRICS

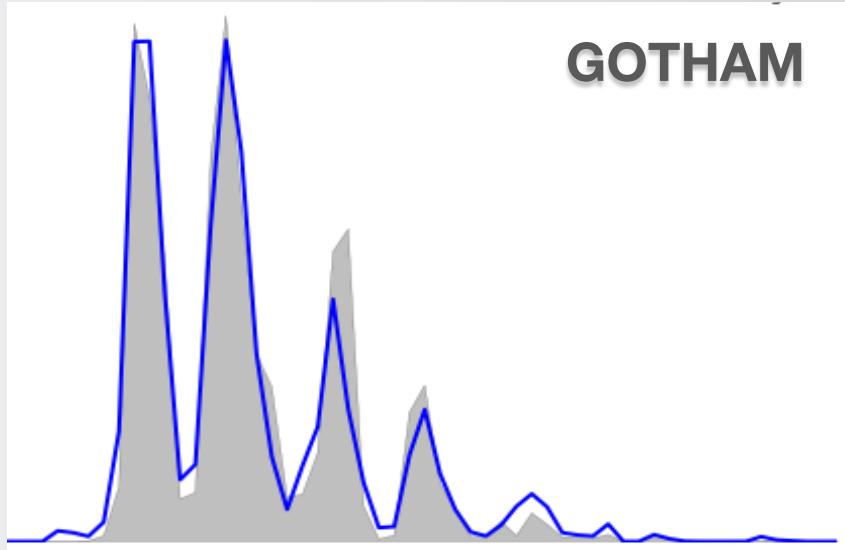
	PRED	MSE
Correct	52%	7.69 (2.8 yrs)
± 1 yr	61%	
± 2 yr	73%	
± 5 yr	95%	



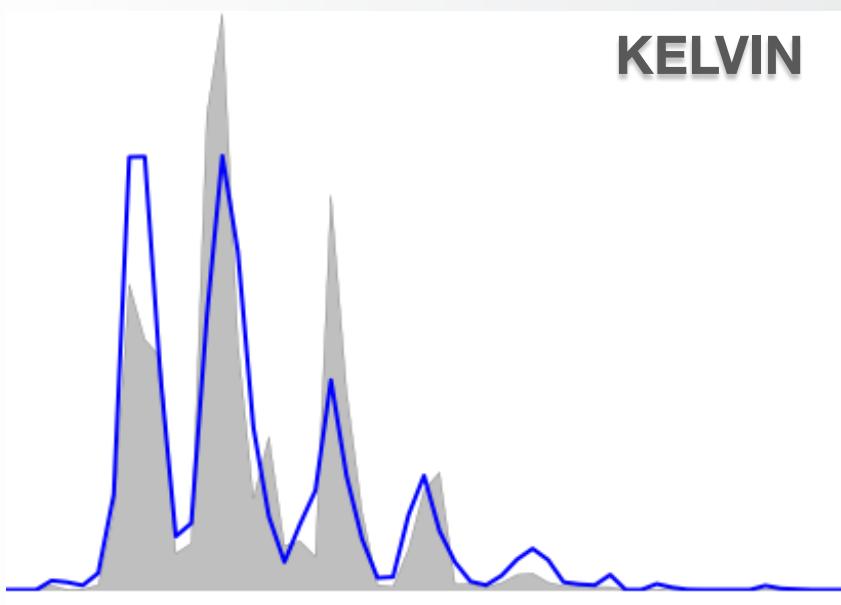
FILTER AGE DISTRIBUTION



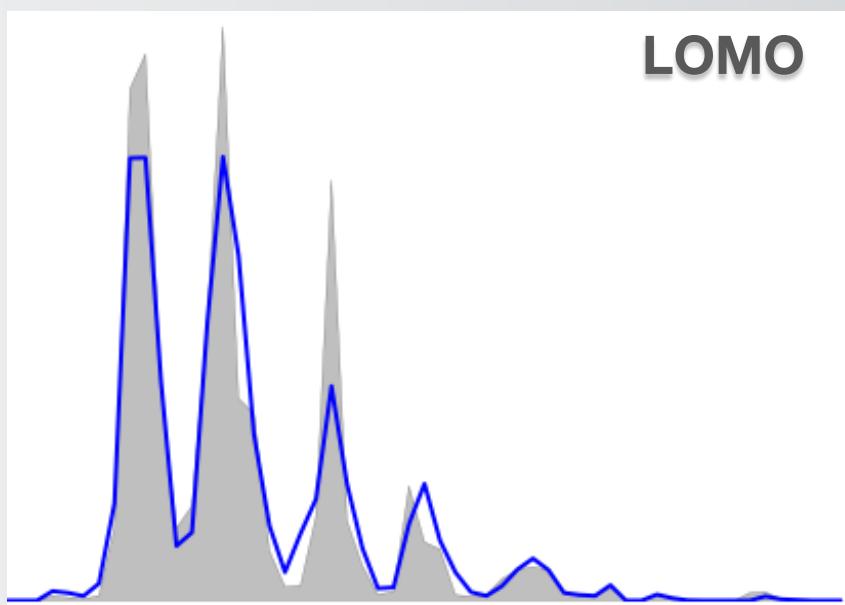
UNFILTERED



GOTHAM



KELVIN



LOMO

NEXT STEPS

Improvements

- Search for optimal parameters
 - Learning Rate
 - Optimal Epochs

Applications

- Plug in to apps (Tinder, Hinge, etc.)

Thank You

Gracias

감사합니다

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