Face Off Report

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Contents

1	ummary	2
2	Results	2
	.1 Celebrities	3
	.2 Famous	16
	.3 Not Famous	30

1 Summary

The attack model has achieved 35% success rate in fooling face recognition tools BetaFace and Clarifai. However our model couldn't impersonate the person in the picture to the target person in most cases.

2 Results

Notations:

H: Was able to impersonate the target person

M: Was able to change the identity to someone else

U: The original identity is not in recognizer dataset, also we couldn't impersonate the target person . * in some cases even though we don't achieve the targets, with choosing different targets the recognizers identify different persons.

L: Couldn't fool the recognizer

2.1 Celebrities

Ali Daie



Furthest - Pete Sampras, Similarity: -0.250, BetaFace:UH(76)H(76) Clarifai:UUU



Random - Jennifer Aniston, Similarity: 0.085, BetaFace:UUU Clarifai:UUU







 ${\bf Random}$ - George Robertson, Similarity: 0.083, Beta
Face:UH(77)H(80) Clarifai:UUU



Furthest - Mahathir Mohamad, Similarity: -0.409, BetaFace:MMM Clarifai:LMM



Random - Spencer Abraham, Similarity: -0.112, BetaFace:MMM Clarifai:LMM



Random - Michael Bloomberg, Similarity: 0.078, BetaFace:H(75)H(75)H(78) Clarifai:MMM



Furthest - Jose Maria Aznar, Similarity: -0.256, BetaFace:LMH(76) Clarifai:LLL



Random - Pervez Musharraf, Similarity: -0.242, BetaFace:MMM Clarifai:LLL



Random - John Bolton, Similarity: -0.048, BetaFace:LMM Clarifai:LMM



 ${\bf Furthest} \text{ - Donald Rumsfeld, Similarity: -0.268, BetaFace:LLL Clarifai:LLL}$



Random - Julianne Moore, Similarity: -0.020, BetaFace:LLL Clarifai:LLL



 ${\bf Random}$ - Tiger Woods, Similarity: 0.066, BetaFace:LLL Clarifai:LLL



Furthest - Trent Lott, Similarity: -0.301, BetaFace:UUU Clarifai:UUU



Random - Fidel Castro, Similarity: -0.067, BetaFace:UUU Clarifai:UUU



Random - Joschka Fischer, Similarity: 0.064, BetaFace:UUU Clarifai:UUU



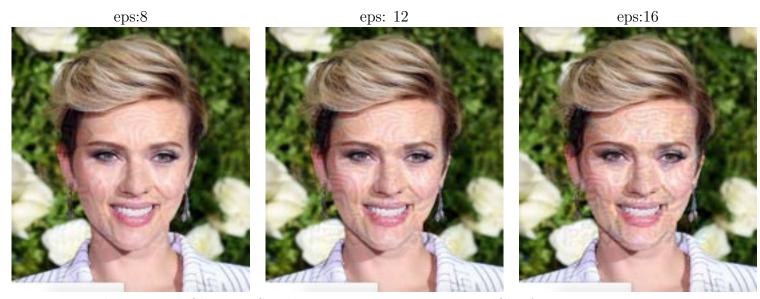
Furthest - Joschka Fischer, Similarity: -0.268, BetaFace:MMM Clarifai:LLM



Random - Arnold Schwarzenegger, Similarity: 0.130, BetaFace:LLH(80) Clarifai:LLH



Random - Winona Ryder, Similarity: -0.137, BetaFace:LLL Clarifai:LLL



Furthest - Jean Chretien, Similarity: -0.278, BetaFace:LMM Clarifai:MMM



 ${\bf Random}$ - Trent Lott, Similarity: -0.035, BetaFace:LLM Clarifai:LLM



 ${\bf Random}$ - Mohammed Al-Douri, Similarity: -0.191, BetaFace:LLL Clarifai:LMM

Taylor Swift



Furthest - Jeremy Greenstock, Similarity: -0.240, BetaFace:UUU Clarifai:LLL

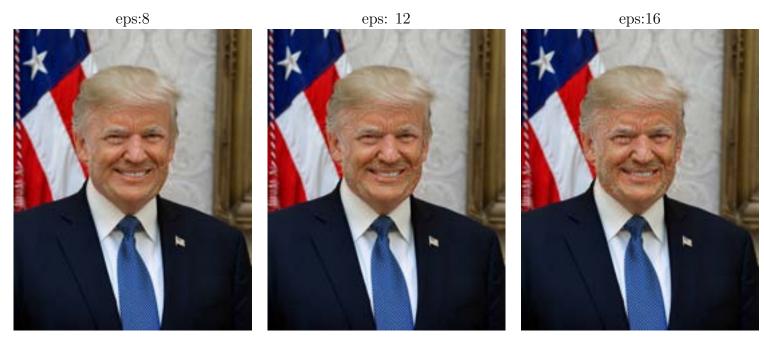


Random - George W Bush, Similarity: -0.128, BetaFace:UUU Clarifai:LML



Random - Paul Bremer, Similarity: -0.041, BetaFace:UUU Clarifai:LLL

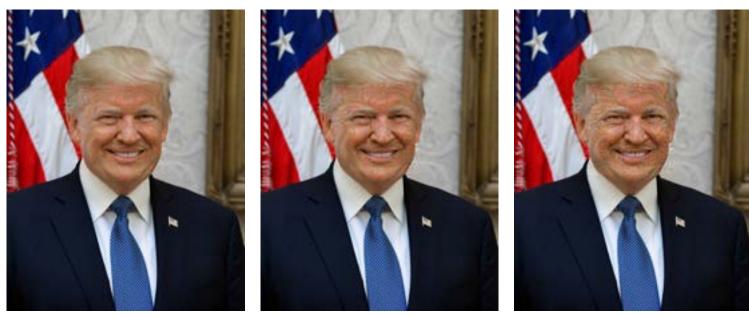
Trump



Furthest - Hamid Karzai, Similarity: -0.316, BetaFace:LMH(78) Clarifai:L-



Random - Mahathir Mohamad, Similarity: -0.158, BetaFace:MMM Clarifai:—



 ${\bf Random}$ - Hugo Chavez, Similarity: 0.014, Beta
Face:LH(78)H(80) Clarifai:—

Vladimir Putin







 $\mathbf{Furthest}$ - Abdullah Gul, Similarity: -0.256, BetaFace:LMM Clarifai:LLM







 ${\bf Random}$ - Hugo Chavez, Similarity: 0.184, Beta
Face:LLL Clarifai:LLL



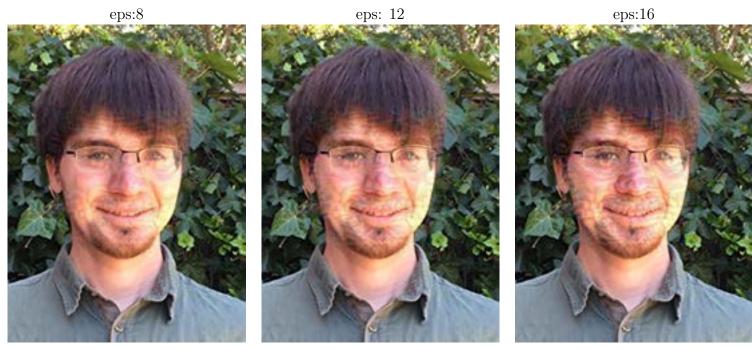




Random - Hamid Karzai, Similarity: -0.114, BetaFace:LMM Clarifai:LLM

2.2 Famous

Ian Goodfellow



Furthest - Kofi Annan (BetaFace: Y), Similarity: -0.283, BetaFace: UUU Clarifai: UUU



Random - Gray Davis(BetaFace:Y), Similarity: 0.093, BetaFace:UUU Clarifai:UUU



 ${\bf Random - Michael \ Bloomberg(BetaFace:Y), \ Similarity: -0.095, \ BetaFace:UUU \ Clarifai:UUU \ Clarifai:U$

Max Amini



Furthest - Vicente Fox(BetaFace:Y), Similarity: -0.322, BetaFace:UUU Clarifai:UUU



Random - Jiang Zemin(BetaFace:Y), Similarity: -0.070, BetaFace:UUU Clarifai:UUU



 ${\bf Random - Renee\ Zellweger} (BetaFace:Y),\ Similarity:\ -0.210,\ BetaFace:UUU\ Clarifai:UUU$



Furthest - Britney Spears, Similarity: -0.331, BetaFace:LLL Clarifai:UUU



Random - Jack Straw, Similarity: -0.067, BetaFace:LLL Clarifai:UUU



Random - Ricardo Lagos, Similarity: -0.026, BetaFace:LLM Clarifai:UUU

Hamad bin Khalifa Al Thani,



Furthest - Lance Armstrong, Similarity: -0.326, BetaFace:LMM Clarifai:UUU



Random - Halle Berry, Similarity: 0.114, BetaFace:LLM Clarifai:UUU



Random - Naomi Watts, Similarity: -0.161, BetaFace:LLL Clarifai:UUU

eps:8 eps: 12 eps:16

Furthest - Bill Clinton(BetaFace:Y), Similarity: -0.235, BetaFace:UUU Clarifai:UUU



Random - Julianne Moore(BetaFace:Y), Similarity: 0.018, BetaFace:UUU Clarifai:UUU

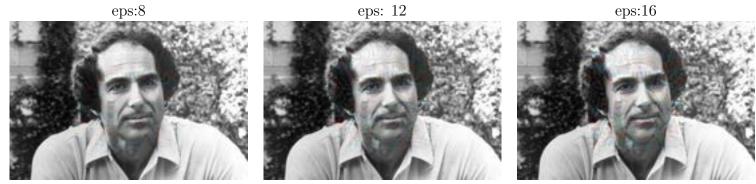




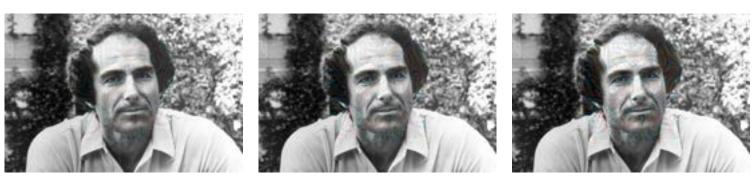


Random - George W Bush(BetaFace:Y), Similarity: 0.200, BetaFace:UUU Clarifai:UUU

Philip roth



Furthest - Norah Jones, Similarity: -0.299, BetaFace:LLL Clarifai:UUU



Random - David Beckham, Similarity: 0.046, BetaFace:LLL Clarifai:UUH



Random - Paul Bremer, Similarity: -0.028, BetaFace:LLL Clarifai:UUU



Furthest - Tom Daschle(BetaFace:Y), Similarity: -0.331, BetaFace:UUU Clarifai:UUU



Random - Rudolph Giuliani(BetaFace:Y), Similarity: -0.097, BetaFace:UUU Clarifai:UUU



Random - Nestor Kirchner(BetaFace:Y), Similarity: 0.055, BetaFace:UUU Clarifai:UUU

Simin daneshvar



Furthest - Winona Ryder(BetaFace:Y), Similarity: -0.188, BetaFace:UUU Clarifai:UUU



 ${\bf Random}$ - Junichiro Koizumi
(BetaFace:Y), Similarity: 0.105, BetaFace:UUU Clarifai:UUU



Random - Kofi Annan (BetaFace: Y), Similarity: 0.138, BetaFace: UUU Clarifai: UUU

Steve Toltz







Furthest - John Snow(BetaFace:N), Similarity: -0.341, BetaFace:UUU Clarifai:UUU







Random - Ariel Sharon(BetaFace:Y), Similarity: 0.113, BetaFace:UUU Clarifai:UUU







Random - Joschka Fischer(BetaFace:Y), Similarity: -0.144, BetaFace:UUU Clarifai:UUU

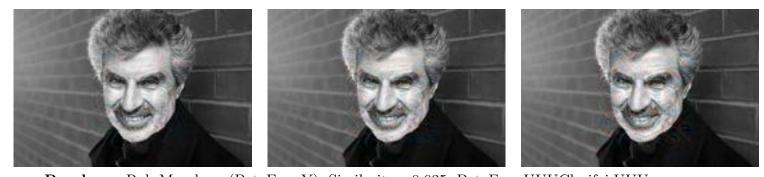
Yoshua Bengio



Furthest - Tiger Woods, Similarity: -0.254, BetaFace:UUU Clarifai:UUU



Random - Julie Gerberding(BetaFace:N), Similarity: -0.003, BetaFace:UUU Clarifai:UUU



Random - Roh Moo-hyun(BetaFace:Y), Similarity: -0.035, BetaFace:UUUClarifai:UUU

2.3 Not Famous

Joxan Jaffar



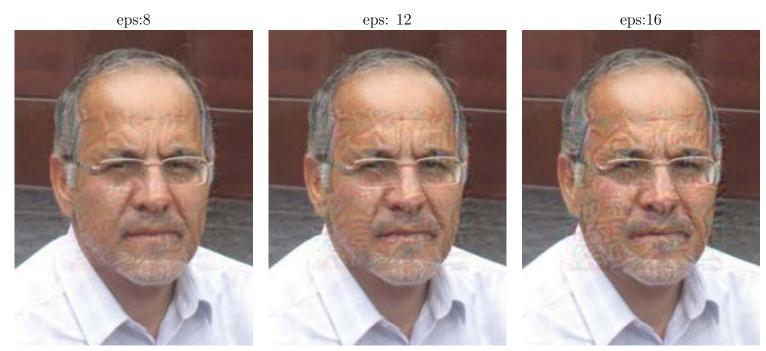
Furthest - Richard Myers(BetaFace:Y), Similarity: -0.209, BetaFace:UUU Clarifai:UUU



Random - Guillermo Coria(BetaFAce:Y), Similarity: 0.028, BetaFace:UUH(75) Clarifai:UUU



 $\textbf{Random} \text{ - Jiang Zemin} (\text{BetaFace:Y}), \text{ Similarity: 0.418, BetaFace:H} (88) \\ \text{H} (87) \\ \text{H} (88) \text{ Clarifai:UUU} \\ \text{U} (88) \\ \text{U} (87) \\ \text{H} (88) \\ \text{U} (88)$



Furthest - Carlos Moya(BetaFace:Y), Similarity: -0.237, BetaFace:UUU Clarifai:UUU



Random - Kofi Annan, Similarity: 0.266, BetaFace:UH(76)H(79) Clarifai:UUU



Random - Pervez Musharraf (BetaFace:Y), Similarity: 0.400, BetaFace:H (80) H (82) H (85) Clarifai:UUU

Ulrike Grossner







Furthest - Jack Straw(BetaFace:Y), Similarity: -0.309, BetaFace:UUU Clarifai:UUU







Random - Hans Blix(BetaFace:Y), Similarity: -0.052, BetaFace:UUU Clarifai:UUU







Random - John Snow(BetaFace:N), Similarity: -0.138, BetaFace:— Clarifai:UUU

Mehmet Fatih Yanik



Furthest - Bill Simon(BetaFace:N), Similarity: -0.288, BetaFace:-- Clarifai:UUU



Random - Joschka Fischer(BetaFace:Y), Similarity: 0.107, BetaFace:H(81)H(85)H(86) Clarifai:UUU



Random - Guillermo Coria(BetaFace:Y), Similarity: -0.070, BetaFace:UH(79)H(77) Clarifai:UUU

Brian Lim



Furthest - David Beckham, Similarity: -0.294, BetaFace:UH(75)H(78) Clarifai:UUU



Random - Jiang Zemin (BetaFace:Y), Similarity: 0.191, BetaFace:H (81) H (87) H (86) Clarifai:UUU



Random - John Snow(BetaFace:N), Similarity: -0.047, BetaFace:— Clarifai:UUU







Furthest - Gerhard Schroeder(BetaFace:Y), Similarity: -0.352, BetaFace:UUU Clarifai:UUU







Random - Paul Bremer, Similarity: -0.083, BetaFace:UH(76)H(76) Clarifai:UUU







Random - Vicente Fox(BetaFace:Y), Similarity: -0.352, BetaFace:UUU Clarifai:UUU



Furthest - Paul Bremer(BetaFace:Y), Similarity: -0.251, BetaFace:UUU Clarifai:UUU



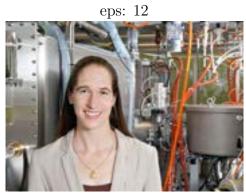
Random - Tiger Woods, Similarity: 0.213, BetaFace:UUU Clarifai:UUU



Random - Jeremy Greenstock(BetaFace:N), Similarity: 0.012, BetaFace:UUU Clarifai:UUU

Vanessa Wood







Furthest - Tom Daschle, Similarity: -0.272, BetaFace:UUU Clarifai:UUU



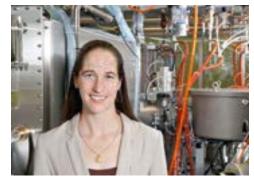




Random - John Negroponte(BetaFace:Y), Similarity: -0.101, BetaFace:UUU Clarifai:UUU







Random - Lance Armstrong, Similarity: 0.096, BetaFace:H(79)H(78)H(81) Clarifai:UUU

Helmut Bolcskei







Furthest - James Blake(BetaFace:N), Similarity: -0.276, BetaFace:— Clarifai:UUU







Random - Tiger Woods, Similarity: 0.115, BetaFace:UUU Clarifai:UUU







Random - Jose Maria Aznar, Similarity: 0.242, BetaFace:H(83)H(85)H(86) Clarifai:UUU

Klaas Prussmann





Furthest - David Beckham, Similarity: -0.272, BetaFace:UUU Clarifai:UUU







Random - Bill Clinton, Similarity: -0.091, BetaFace:UUU Clarifai:UUU







 ${\bf Random}$ - Joschka Fischer, Similarity: 0.047, Beta
Face:H(77)H(76)H(79) Clarifai:UUU