

Face Off Report

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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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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



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



Random - George Robertson, Similarity: 0.083, BetaFace:UH(77)H(80) Clarifai:UUU

Chris Evans

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



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

Cristiano Ronaldo

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



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

Jackie Chan

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



Furthest - Donald Rumsfeld, Similarity: -0.268, BetaFace:LLL Clarifai:LLL



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



Random - Tiger Woods, Similarity: 0.066, BetaFace:LLL Clarifai:LLL

Kim Jong un

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Robert Downey

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



Furthest - Joshka 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

Scarlet Johansson

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



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



Random - Trent Lott, Similarity: -0.035, BetaFace:LLM Clarifai:LLM



Random - Mohammed Al-Douri, Similarity: -0.191, BetaFace:LLL Clarifai:LMM

Taylor Swift

Original image on BetaFace: N, Clarifai: Y

eps:8



eps: 12



eps:16



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

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



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



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



Random - Hugo Chavez, Similarity: 0.014, BetaFace:LH(78)H(80) Clarifai:—

Vladimir Putin

Original image on BetaFace: Y, Clarifai: Y

eps:8



eps: 12



eps:16



Furthest - Abdullah Gul, Similarity: -0.256, BetaFace:LMM Clarifai:LLM



Random - Hugo Chavez, Similarity: 0.184, BetaFace:LLL Clarifai:LLL



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

2.2 Famous

Ian Goodfellow

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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



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



Random - Michael Bloomberg(BetaFace:Y), Similarity: -0.095, BetaFace:UUU Clarifai:UUU

Max Amini

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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



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



Random - Renee Zellweger(BetaFace:Y), Similarity: -0.210, BetaFace:UUU Clarifai:UUU

Amy tan

Original image on BetaFace: Y, Clarifai: N
eps: 12

eps:8



eps:16



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,

Original image on BetaFace: Y, Clarifai: N

eps:8



eps: 12



eps:16



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

Ko Un

Original image on BetaFace: N, Clarifai: N

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

Original image on BetaFace: Y, Clarifai: N

eps:8



eps: 12



eps:16



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

Reza Ghoochan Nejhad

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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:UUU Clarifai:UUU

2.3 Not Famous

Joxan Jaffar

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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



Random - Jiang Zemin(BetaFace:Y), Similarity: 0.418, BetaFace:H(88)H(87)H(88) Clarifai:UUU

Mohammad Reza Meybodi

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Reza Shokri

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Tan Eng Chye

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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

Original image on BetaFace: N, Clarifai: N

eps:8



eps: 12



eps:16



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



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



Random - Joschka Fischer, Similarity: 0.047, BetaFace:H(77)H(76)H(79) Clarifai:UUU