

Week 1: Summer Internship

24 May 2021- 30 May 2021

24 May - 25 May

First official meeting after the commencement of internship (24 May).

Discussed major project ideas and overview of the overall workflow.

Picked up the “Deep Fake Analysis and Detection” as the topic of interest (25 May).

Read about the topic and got familiar with the terms and tools.

Also listed down some of the popular image search engines and other deep fake detection tools.

26 May - 28 May

Setting up of the machine for generation of deepfakes along with exploring the tools available (26 May).

Got into learning how deep fakes are made and tried to make some deep fake videos (27 May).

Created some more deep fake images and listed some more advanced level deep fake detection tools and search engines.

Deep fake images and videos



Deep fake of Elon Musk
singing Memories



Easy to detect deep fake of
Donald Trump and Elon Musk



Advanced deep fake.
Source: kaggle.com

29 May-30 May

Tested the search engines for images and videos.


Tested corresponding to basic and advanced deep fake images.

Got familiar with google collab for training the model as local machine would take a lot more time.


Deep fake images and videos



Tested at: <https://deepware.ai/>

**NO DEEPPAKE DETECTED**

New Scan



Name: result.mp4

Size: 288.9 KB

User

2021-05-28 17:16:35 UTC


Source

6 seconds ago

DETAILS

Deepware aims to give an opinion about the scanned video and is not responsible for the result. As Deepware Scanner is still in beta, the results should not be treated as an absolute truth or evidence.

1.00



Pred. 0.02

Model Results

Deepware: NO DEEPPAKE DETECTED(45%)

Seferbekov: NO DEEPPAKE DETECTED(36%)

Ensemble: NO DEEPPAKE DETECTED(38%)

Video

Duration:

11 sec

Resolution:

256 x 256

Frame Rate:

23.98 fps

Codec:

h264

Audio

Duration:

11 sec

Channel:

stereo

Sample Rate:

44 khz

Codec:

aac

Deep fake images -1



Submission date: 2021 May 28

File: 00KPGHV40E.jpeg

image / jpeg

Visual threats:

▲ Detected

Detection of

Result

Confidence ⓘ

Model Generator ⓘ

AI face swap ⓘ

✓ Undetected

-

-

GAN-generated face ⓘ

▲ Detected

99.9%

Stylegan

Tested at: <https://sensity.ai/>

Deep fake images -2



Submission date: 2021 May 28

File: 00H858UYSD.jpeg

image / jpeg

Visual threats:

Detected

Detection of	Result	Confidence ⓘ	Model Generator ⓘ
AI face swap ⓘ	✓ Undetected	-	-
GAN-generated face ⓘ	⚠ Detected	99.9%	Stylegan

Tested at: <https://sensity.ai/>

Deep fake images -3



Submission date: 2021 May 28

File: 0004STET6P.jpeg

image / jpeg

Visual threats:

▲ Detected

Detection of

Result

Confidence ⓘ

Model Generator ⓘ

AI face swap ⓘ

✓ Undetected

-

-

GAN-generated face ⓘ

▲ Detected

99.9%

Stylegan

Tested at: <https://sensity.ai/>

Deep fake images -4



Tested at: <https://sensity.ai/>



Submission date: 2021 May 28

File: 000N7AlAFT.jpeg

image / jpeg

Visual threats:

▲ Detected

Detection of

Result

Confidence ⓘ

Model Generator ⓘ

AI face swap ⓘ

✓ Undetected

-

-

GAN-generated face ⓘ

▲ Detected

99.9%

Stylegan

Deep fake images -5



Tested at:
<https://images.google.com/>



Image size:
167 × 144

No other sizes of this image found.

Possible related search: **suit separate**

<https://www.menswearhouse.com> › Suits › Suit Separates


Suit Separates - Men's Suit Separate Combinations | Men's ...

Shop for men's suit separates including dress slacks, vests & tuxedos. See the latest **suit separate** combinations in the latest styles from Men's Wearhouse.

<https://www.amazon.in> › Dockers-Mens-Suit-Separate-P...

Buy Dockers Men's Suit Separate Pant, Grey Sharkskin, 40x32 ...

Buy Dockers Men's **Suit Separate** Pant, Grey Sharkskin, 40x32 from Casual Trousers at Amazon.in. 30 days free exchange or return.

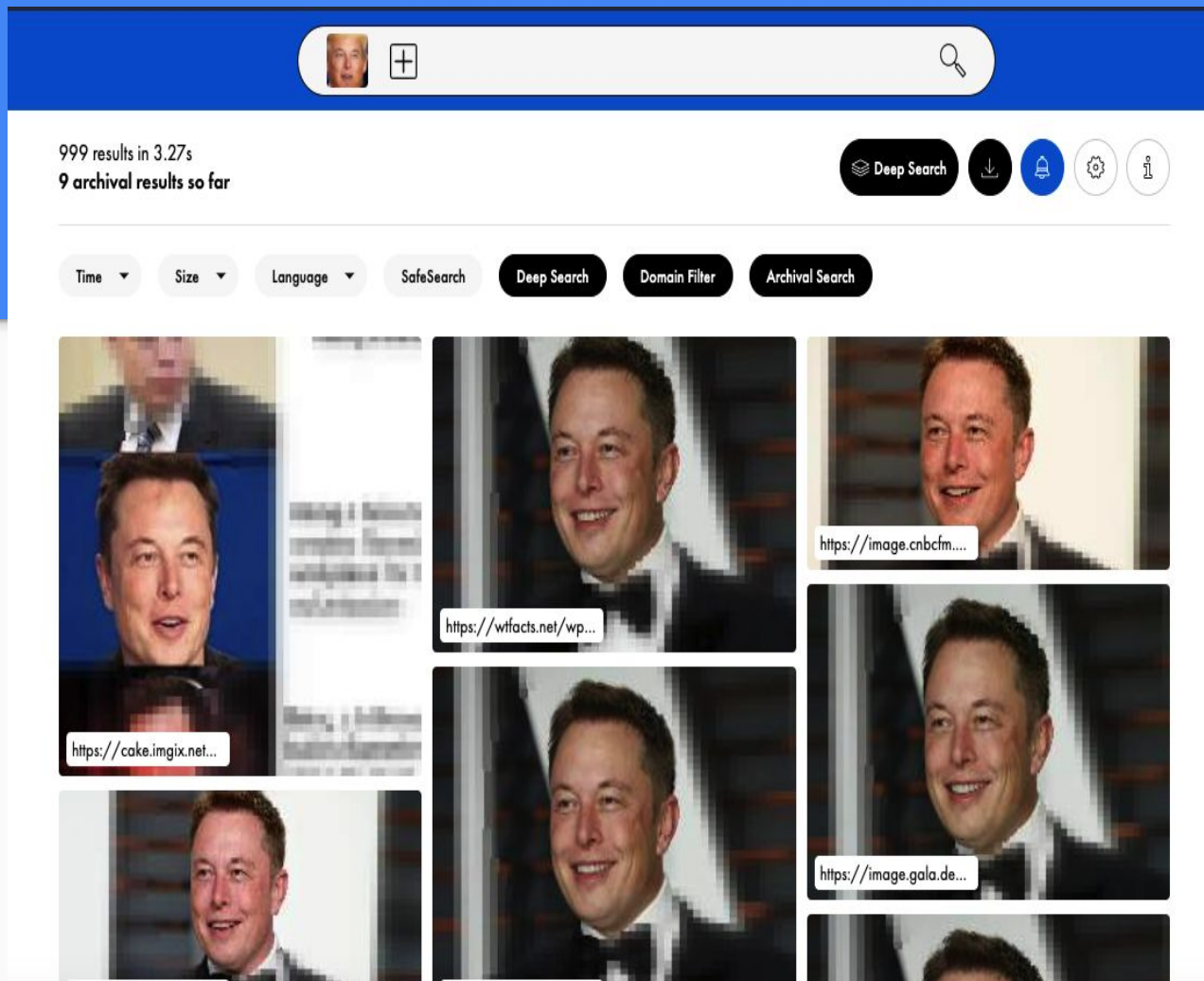
 **Visually similar images**



Deep fake images -5



Tested at:
<https://pimeyes.com/en>



999 results in 3.27s
9 archival results so far

Deep Search

Time Size Language SafeSearch Deep Search Domain Filter Archival Search

<https://cake.imgix.net...>

<https://wtfacts.net/wp...>

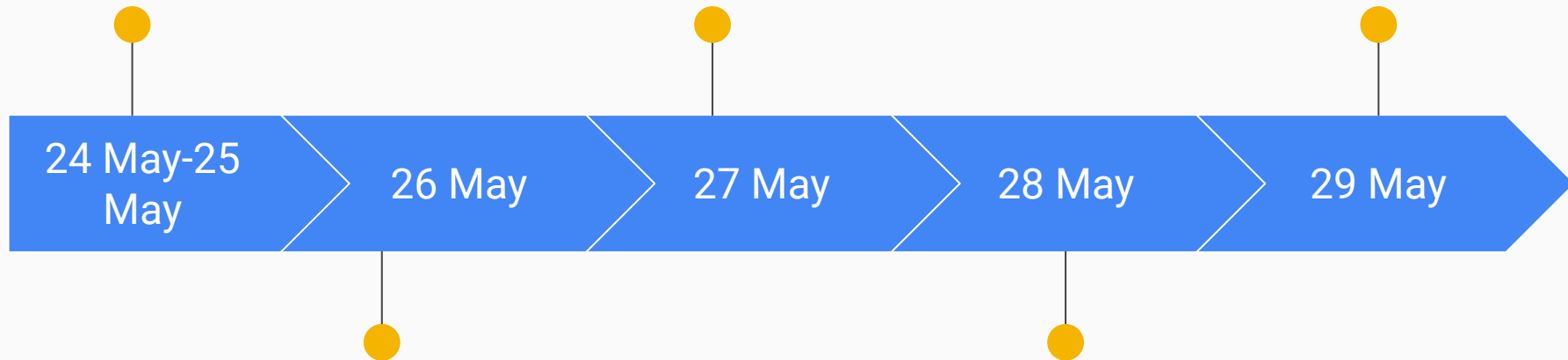
<https://image.cnbcfm....>

<https://image.gala.de...>

Commencement of
the internship

Created the first deep
fake video of Elon
Musk singing
Memories

Report + summarizing



Learning deep fake
generation and using
generation tools.

Testing the search
engine against various
inputs