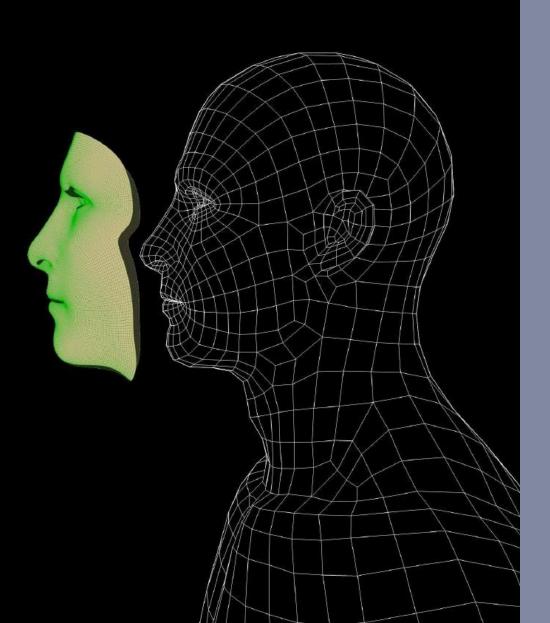


PROJECT DEEP-FAKE

MEET THE TEAM

- 1. AKSHAY MAHAJAN
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- Introduction to deep-fake
- How Deep-fakes Work?
- The Risks of Deep-fakes
- Survey on deepfake videos
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PID 9

INTRODUCTION

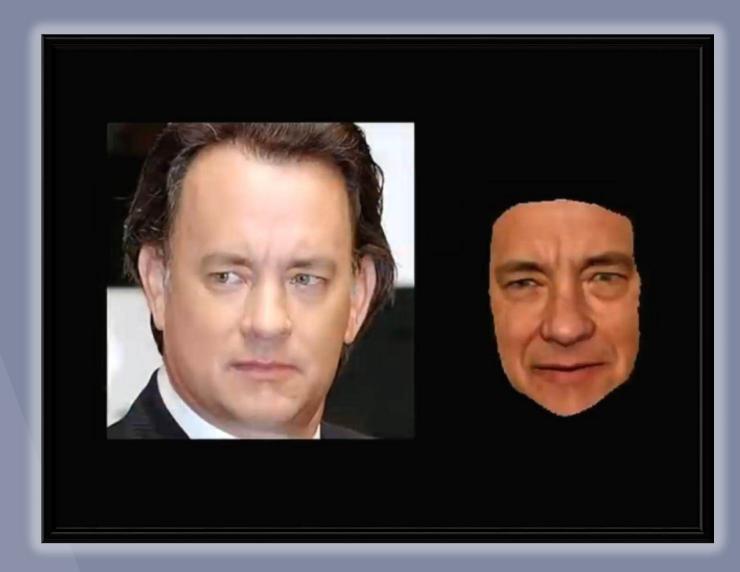
Deep-fakes are computer-generated materials made with advanced AI. They can spread false information and manipulate public opinion. Deep-fake tech creates realistic replicas using a computer and the internet. But, it has harmful effects on society. Groups are raising awareness and advocating for regulations.



HOW DEEP-FAKES WORK?

Deep-fakes use machine learning to copy a person's face or voice by studying their patterns and movements. The algorithm analyzes a large dataset of images or recordings to create new content.

Deep-fakes are hard to detect because they capture the target's mannerisms and expressions, making them highly convincing and difficult to analyze using traditional methods.



THE RISKS OF DEEP-FAKES

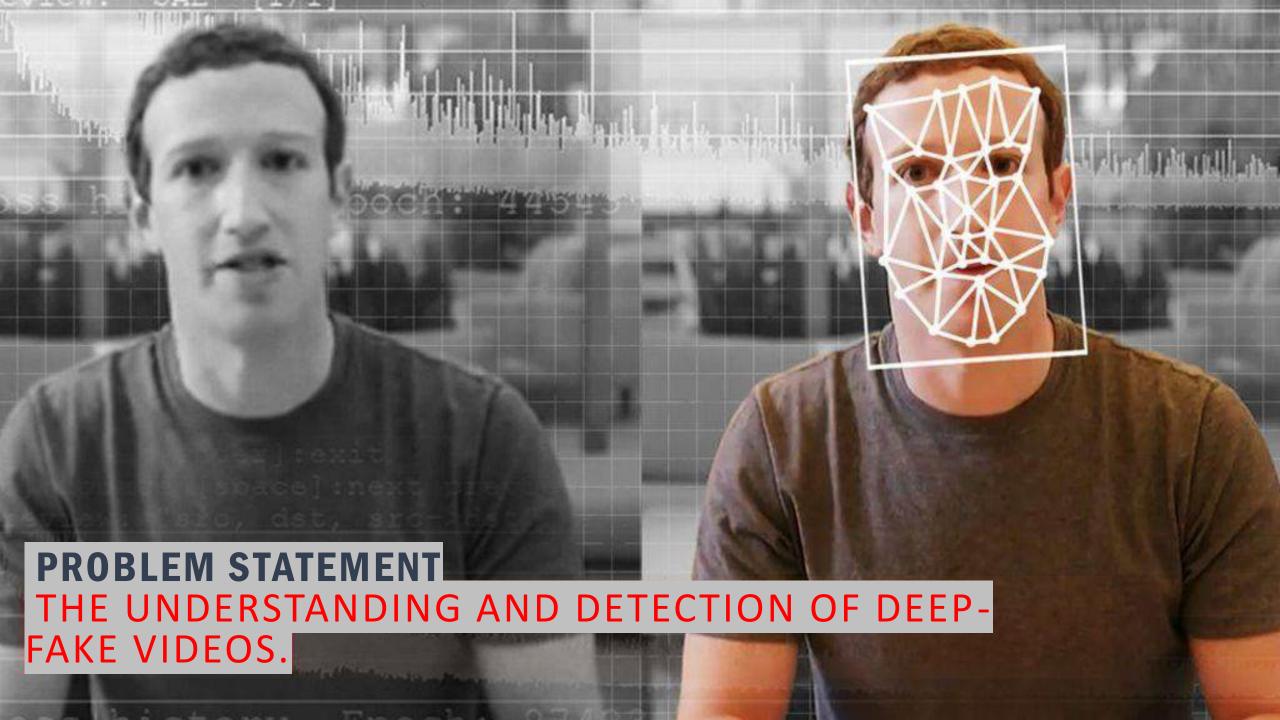
Deep-fakes carry serious risks such as spreading false information, manipulating opinions and committing fraud. They can even be used to fabricate damaging videos of politicians, affecting their reputation and influencing election results.

The most obvious is that deepfake technology allows the creation of convincing videos that can be used for political manipulation. This has, in fact, been the most widely publicized use of the tech to date, with deepfakes of Barack Obama



SURVEY ON DEEPFAKE VIDEOS

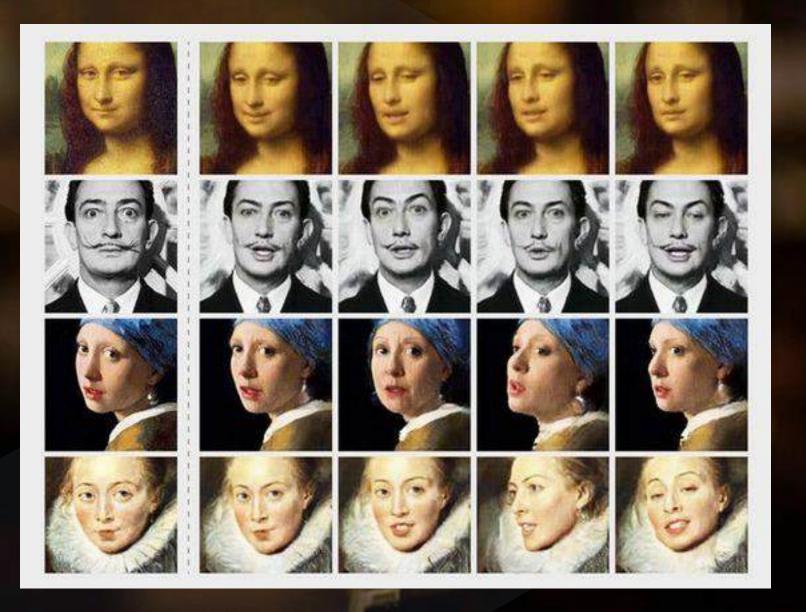




PROBLEM

- DEEP-FAKE ALLS A TYPE OF ARTIFICIAL INTELLIGENCE USED TO CREATE CONVINCING IMAGES, AUDIO AND VIDEO HOAXES.
- DEEP FAKE VIDEOS ARE THE FAKE VIDEOS GENERATED FROM REAL VIDEOS,
 EITHER CLONED OR CONVERTED INTO DIFFERENT FORMS TO CREATE
 MISLEADING INFORMATION AND CIRCULATE IN THE WORLD.
- DEEP FAKE VIDEOS CREATE AND SPREAD WRONG INFORMATION IN MANY CASES WHICH LEADS TO MISUNDERSTANDING AND DISBELIEF AMONG THE PEOPLE.
- SOME OF THESE FAKE VIDEOS ARE OF FAMOUS PERSONALITIES, POLITICIANS
 ETC DELIVERING A MESSAGE THROUGH THE VIDEOS THAT ISN'T REAL AND IS
 SCRIPTED USING DEEP FAKE AI TECHNOLOGY.

SOLUTION ->



SOLUTION

There have generally been two approaches suggested to solving the problems created by deepfakes: use tech to detect fake videos, or improve media literacy.

Researchers at the University at Albany also received funding from DARPA to study deepfakes. This team found that <u>analyzing</u> the blinks in videos could be one way to detect a deepfake from an unaltered video, simply because there are not that many photographs of celebrities blinking.

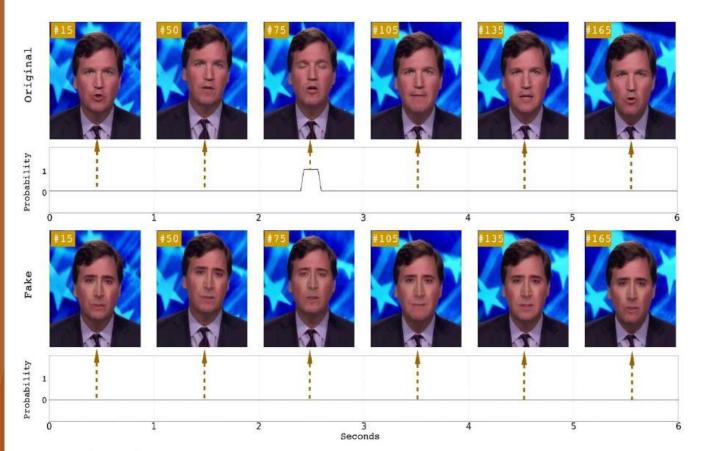
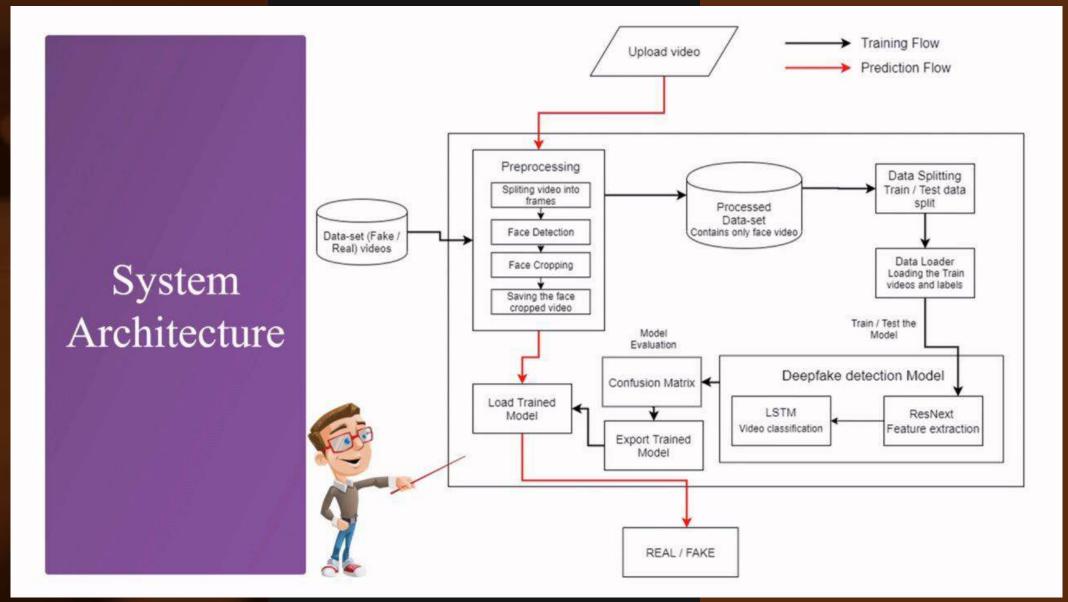
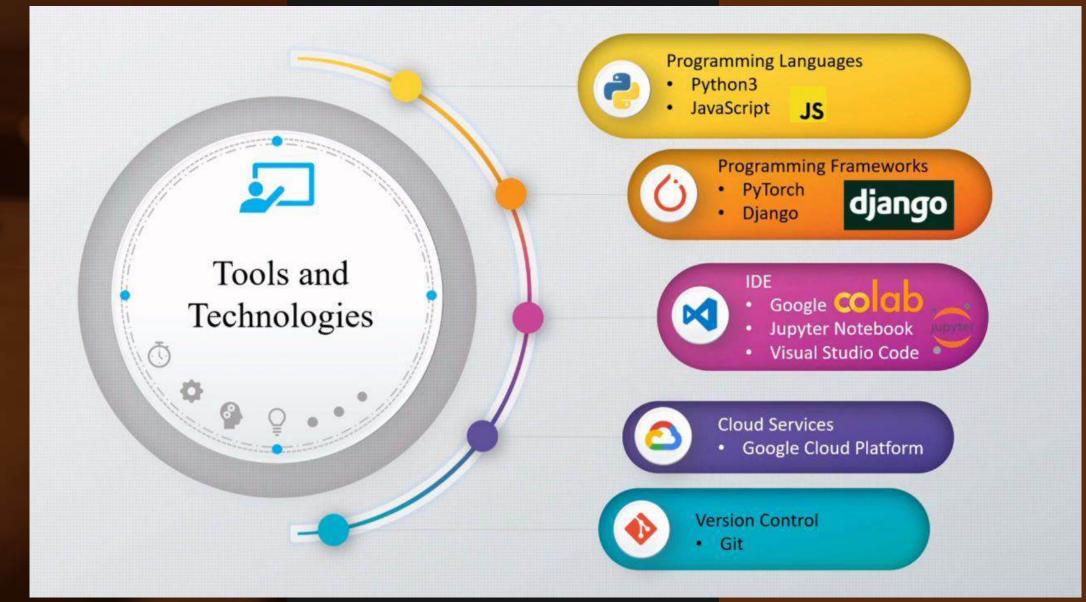


Fig. 1. Example of eye blinking detection on an original video (top) and a DeepFake generated fake video (bottom. Note that in the former, an eye blinking can be detected within 6 seconds, while in the latter such is not the case, which is abnormal from the physiological point of view.

USE CASE DIAGRAM:-



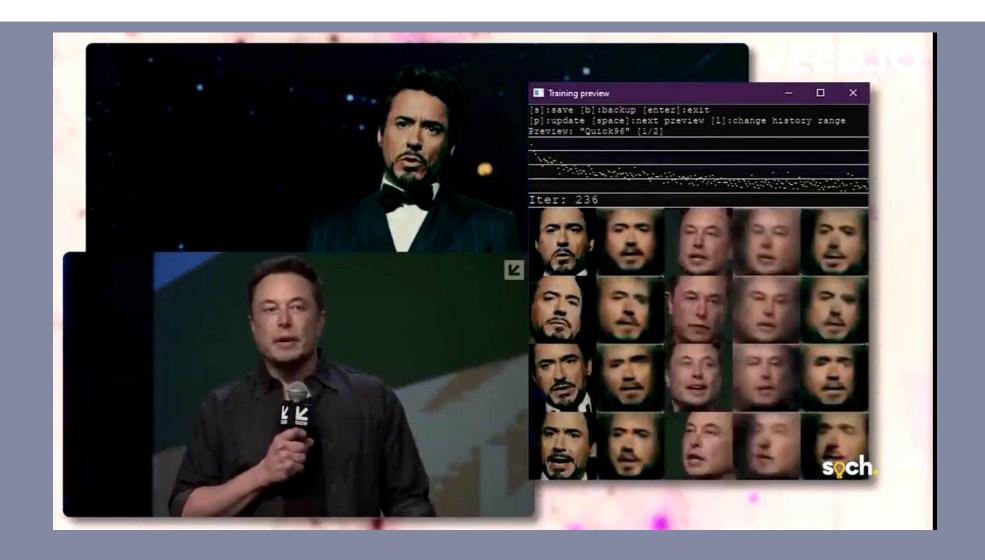
TOOLS AND TECHNOLOGIES :-



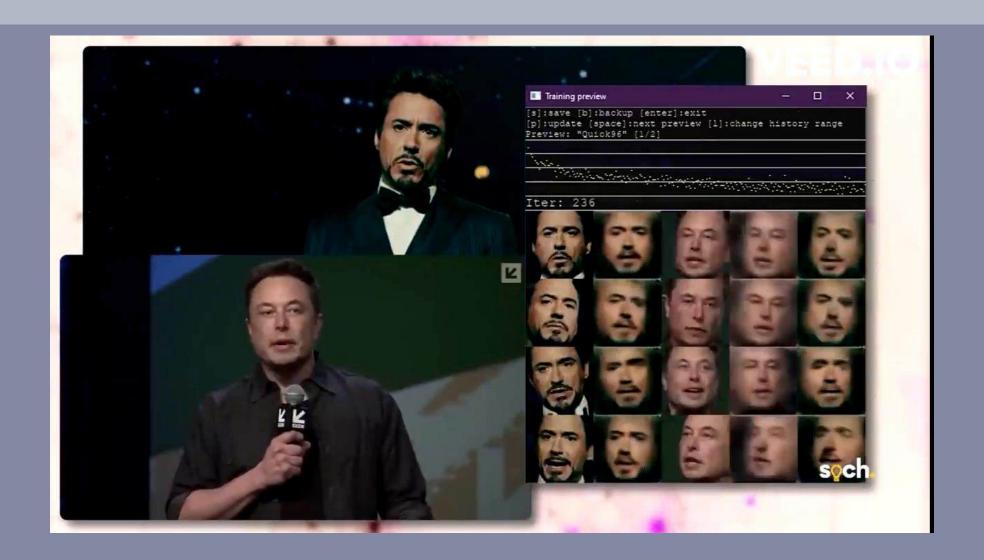
APPLICATIONS

Deepfakes can assist a Deepfake has the Deepfake is also gaining Commercial applications of teacher in delivering potential to democratize traction as a way to deepfakes currently include both hiring the underlying expensive VFX technology. engaging lessons. engage customers and "deepfake actors," deliver value. ART **ADVERTISING MOVIES EDUCATION**

SOME APPLICATIONS OF DEEP-FAKES



SOME APPLICATIONS OF DEEP-FAKES



REFERENCE

MAIN SOURCE OF INFORMATION

https://cybersecurity.att.com/blogs/se curity-essentials/deepfakes-are-aproblem-whats-the-solution

STUDY PAPER

https://www.irjet.net/archives/V9/i6/ IRJET-V9I6548.pdf

A SURVEY ON IDENTIFICATION OF DEEPFAKE USING AI

https://ijarsct.co.in/Paper7755.pdf

