



# Fake Narrative Detection: AI - Powered Solutions for Identifying Deepfakes & Fake News

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# Problem Statement:

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- **Fake Narratives** are widely spread using **DeepFake Videos and Fake News** by using the Internet
- These Narratives then spread misinformation, social unrest, election manipulation and cause reputational damage.



## What is a DeepFake?

Videos that manipulate someone's face & voice using deep learning. These are used for misinformation, scams and defamation.  
Ex: DeepFake videos of politicians, celebrities or corporate lead

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## What is Fake News?

Fake information is revealed as real news.  
This is propagated through social media, websites and messaging apps.  
Used to influence public opinion, elections, and financial markets.

# Expected Outcome

Finding a Solution for Fake Narrative:  
(Internet is used for spreading fake  
narrative by spreading fake news and  
deep fake videos (using AI))



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# Proposed Solution



DeepFake Video Detector

CNN + Transformers-based detection

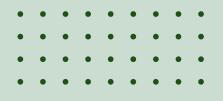
Fake News Detector



NLP-based solution with Fact-checking APIs



# Strategic Objective



## Approach

Using CNN and NLP models to flag Deep-Fakes and Fake News (tracking X accounts for actual news confirmation)

## Requirements

Deep-Fake datasets for training Fake News dataset from LIAR,FakeNewsNet Tweets extraction using BERT



# Strategies Applicable

01

First

02

Second

03

Third

## DeepFake Detection

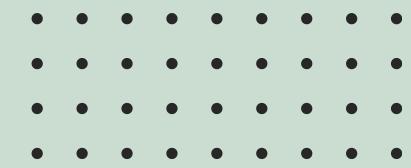
Using Machine Learning and CNN model to identify Deep-Fake Videos and Images on the Internet

## Fake News Detection

Using Fake news from LIAR etc. to train NLP model and also using BERT for Tweet Extraction of authentic news

## Deployment

Finally deploying the models as API or Apps

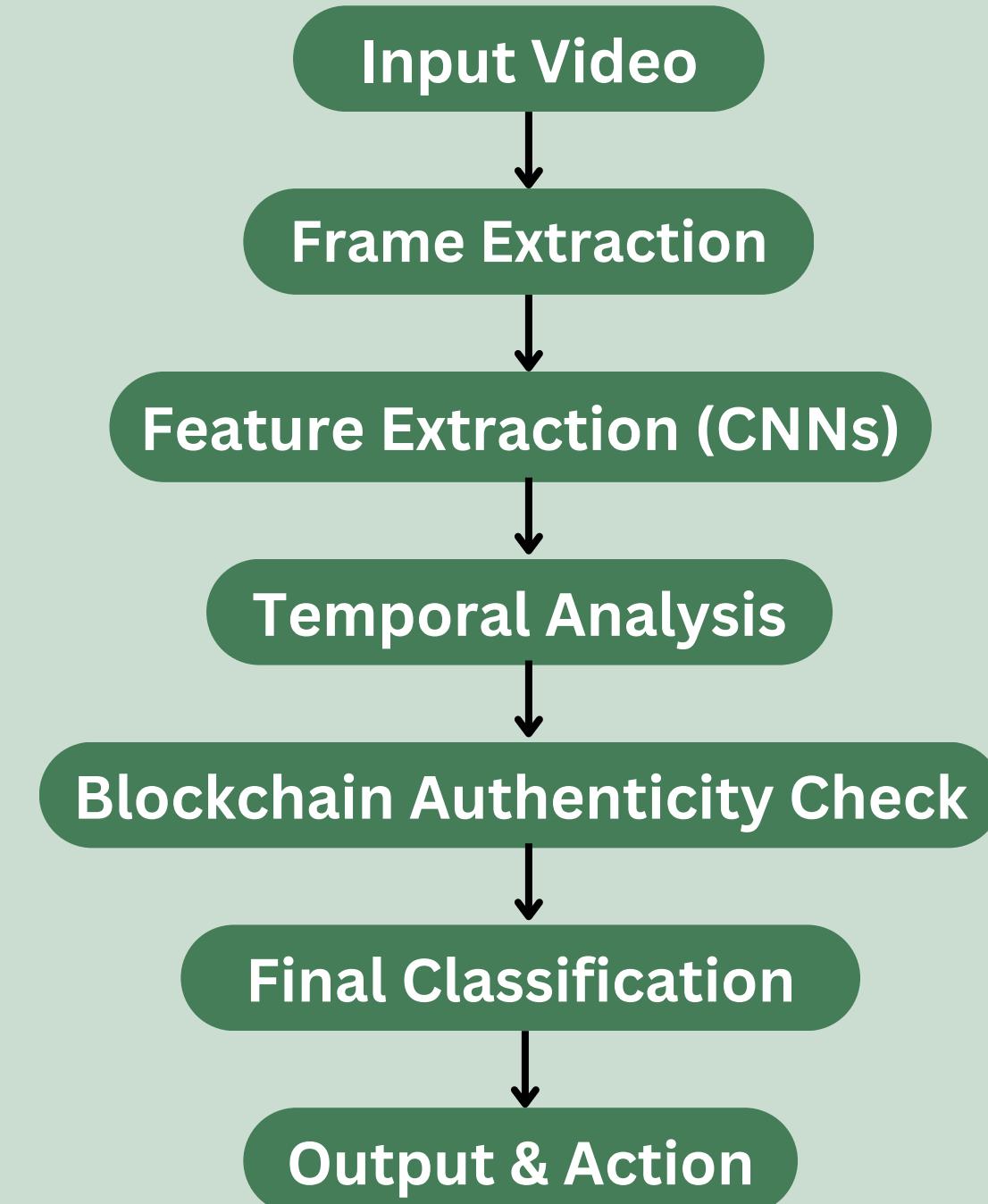


# Technical Approach

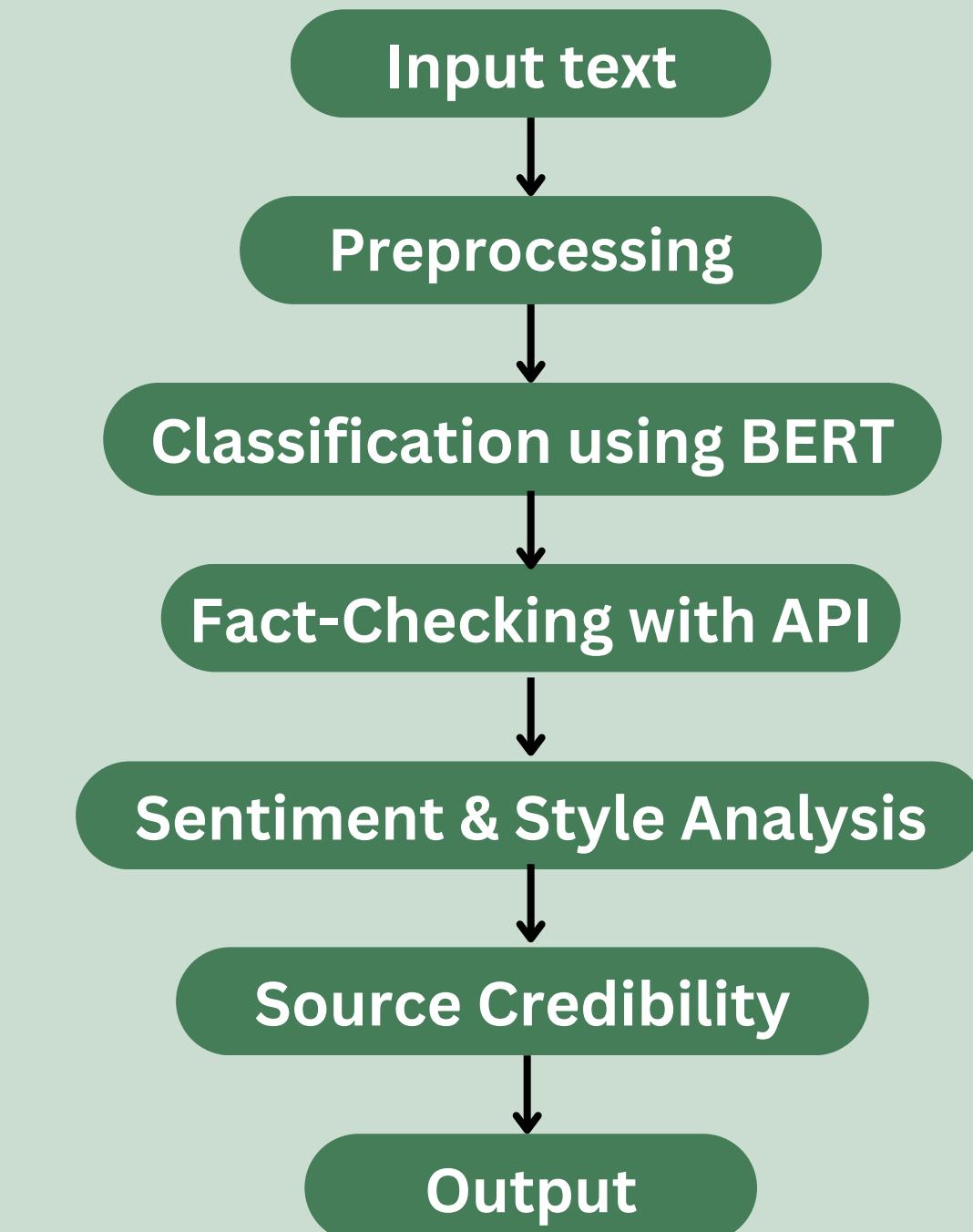


## Deepfake Video Detection

Using **Convolutional Neural Networks (CNNs)** for Feature Extraction detection of inconsistencies in face movements, lip-syncing issues and lighting artifacts. **Transformer-Based Model** (Vision Transformer - ViT) increases accuracy in obtaining manipulated frames. **Temporal Analysis** looks for frame-to-frame inconsistencies to identify DeepFake videos. **Blockchain-Authenticity** by registering verified videos to prevent deepfake proliferation



# Technical Approach



## Fake News Detection

**Natural Language Processing (NLP) + AI Model**  
**BERT** for identifying misinformation using fake news classification. **Fact-Checking APIs** (Google Fact Check, NewsAPI) Matches text with verified sources.

**Sentiment & Style Analysis** for detection of clickbaiting headlines and sentimentally targeted content. **Web Scraping & Source Credibility Check** to analyze reliability of domain & past credibility results.

# Development Outline

- **Deep Fake Detection**

Dataset->Preprocess->Train CNN Model->Evaluate

- **Fake News Detection**

Dataset->Preprocess->Train NLP Model->Evaluate Accuracy.

- **Deployment**

Deploy a Website for Deep Fakes and Fake News detection



# Use Cases

## → Election Integrity

Preventing voters from being targeted by misinformation campaigns

## → Media & Journalism

Helping fact-checking agencies in authenticating news

## → Corporate Security

Preventing fraud or misinformation by identify deepfake videos

## → Social Media Platforms

Real-Time flagging and removal of fake content

## → Legal Investigations

Detecting tampered evidence by helping forensic teams





# Conclusion

During the times when Fake Narratives and DeepFakes harm our trust and integrity, we provide a robust solution with our AI solution.

By using CNNs and NLP this system would provide accurate and timely verification of content.

Having uses across various fields this method has a well informed and protected digital landscape.

In the future new innovations and partnerships would act as a key at being two steps ahead of new rising threats in fake narratives.



**Thankyou  
For Your Attention**