



# CrimeGuard

Predictive Analysis and Realtime Violence Detection System

KIET GROUP OF INSTITUTIONS

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# Project Abstract

## *Overview*

This project utilizes real-time video analysis, crime pattern prediction, and data visualization to enhance public safety and support proactive policing.

## *Key Objectives*

Identify violent events, assess danger levels, notify nearby police stations instantly, and forecast crime trends to aid in preventive measures.

## *Approach*

Implement live video analysis to detect violence, analyze crime data to predict future patterns, and provide users with location- and year-based crime statistics, visualized through interactive graphs.

# Goals and objectives

Real-Time Violence Detection



AI monitors video feeds to detect violent incidents and enable quick intervention.

Crime Prediction Model



Predict total number of crimes of upcoming years.

Automated Alerts



Notify authorities through email automatically upon detecting violence for faster response.

Efficient Resource Allocation

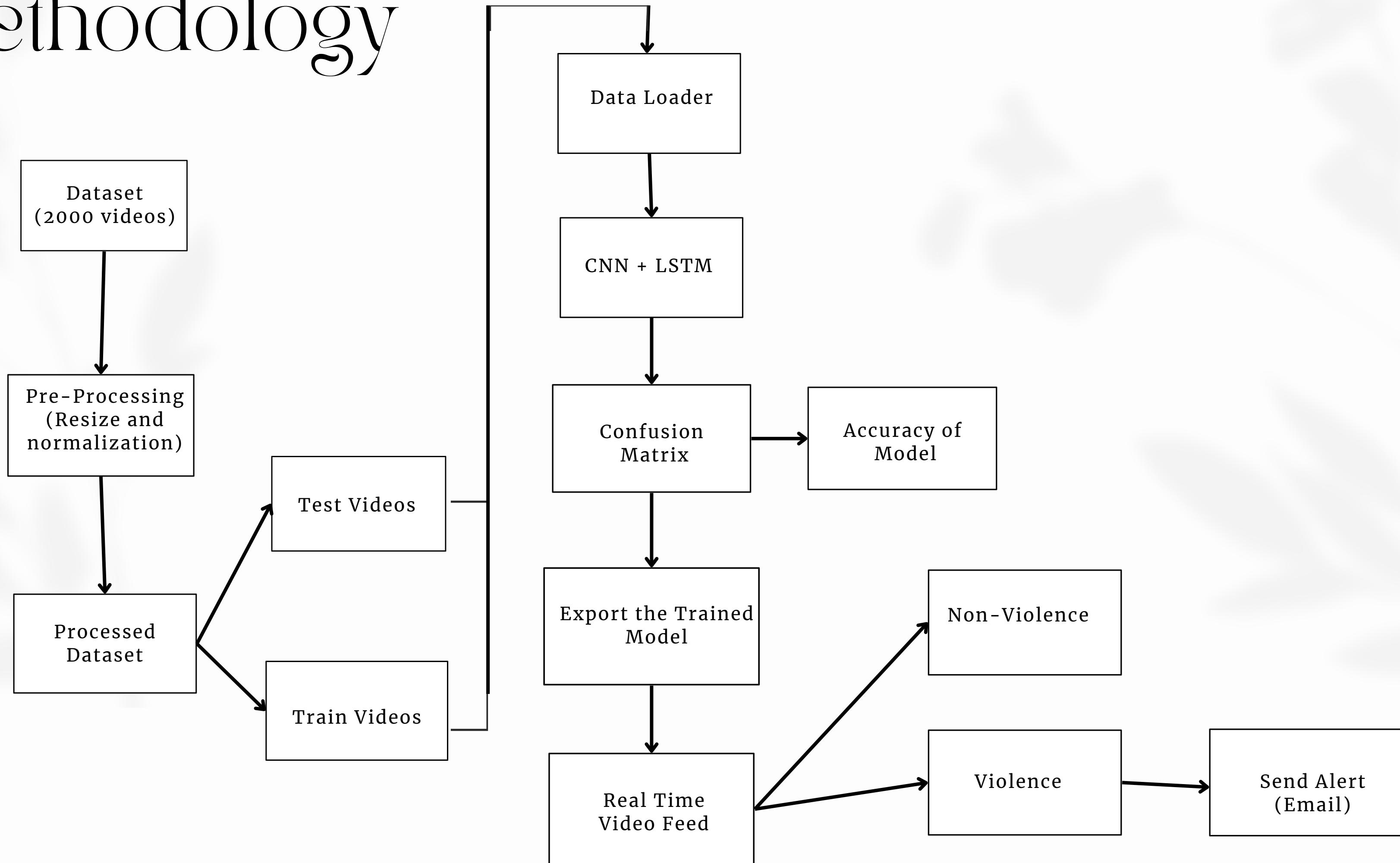


Use data insights to optimize law enforcement resource deployment and investigation efficiency.

# TECHNOLOGY USED

<u>Category</u>	<u>Language</u>	<u>Framework</u>
Frontend	HTML,CSS,JavaScript	React
Backend	Python	Flask (Web Application Framework)
Backend(Video Processing)	Python	OpenCV
Backend(Deep Learning)	Python	TensorFlow
Backend(Machine Learning)	Python	scikit-learn

# Methodology



# Turn Crime Data into Insights

Analyze, predict, and combat crime effectively with advanced data tools.

Get Started



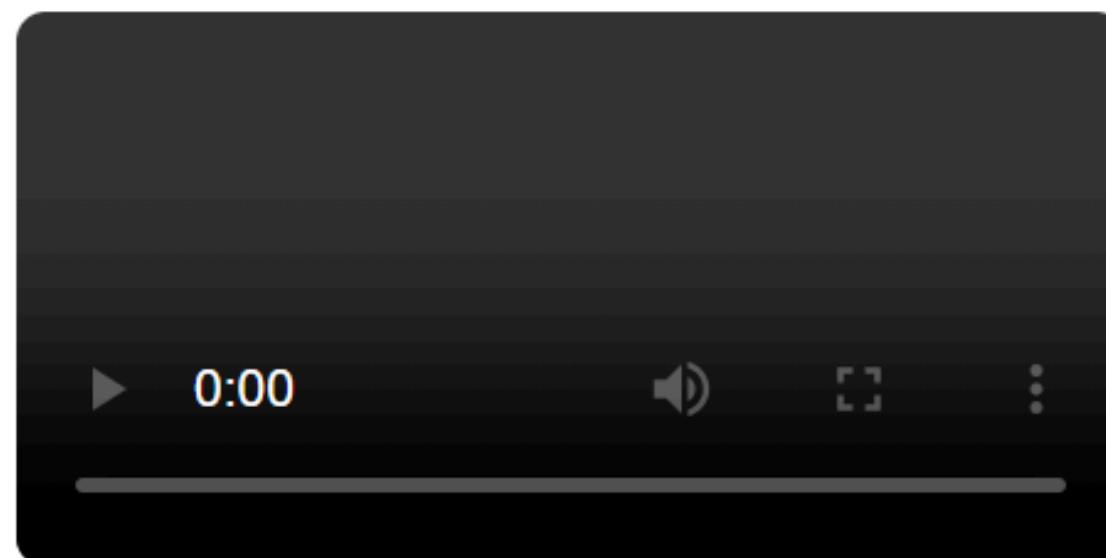
Choose File

Upload

Preview

Check for Violence

Open Camera



## What We Can Do For You



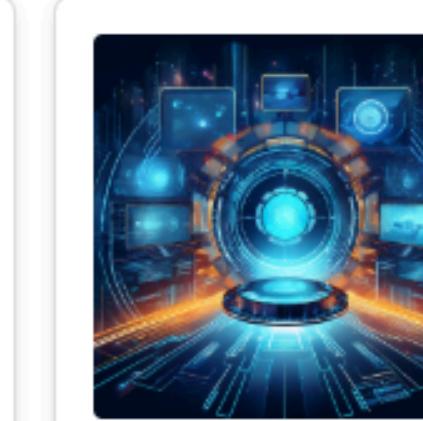
### Query Analysis

Analyze state-wise crime data.

[Know More](#)

### Graph Analysis

Visualize crime state-wise using bar chart.

[Know More](#)

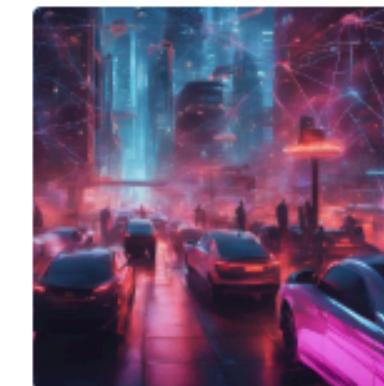
### Predictive Analysis

Predict future crime patterns.

[Know More](#)

### Crime Map

Visualizes the high crime states.

[Know More](#)

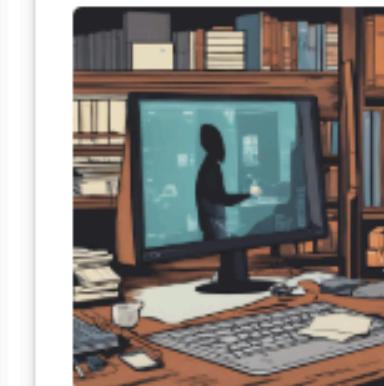
### Crime Trends

Visualizes the yearly data using line chart.

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### Crime Statistics

Displays the crime breakdown using a pie chart.

[Know More](#)

### Crime Severity Heatmap

Visualizes crime severity states-wise using heatmap.

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# Expected Outcomes and Impact

## Real-Time Violence Detection

Faster response to incidents, enhancing public safety.

## Accurate Crime Prediction

Faster response to incidents, enhancing public safety.

## Resource Optimization

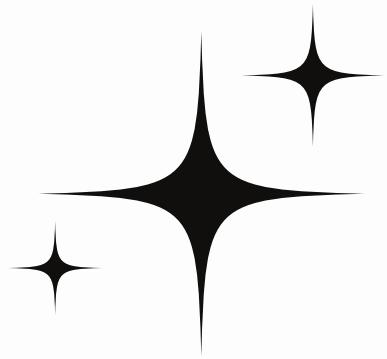
Data-driven allocation improves law enforcement efficiency.

## Community Safety Engagement

Empowered communities actively support crime prevention.

## Reduced Investigative Workload

Automated analysis speeds up case resolution.



# Key Project Deliverables

## **Violence Detection System**

Real-time alerts for violent incidents via surveillance.

## **Crime Prediction Model**

Forecast crime over years to aid law enforcement.

## **Automated Reporting**

Data-driven reports for efficient policing.

## **Community Engagement**

Educate and involve communities in safety efforts.

# Next Steps and Conclusion

1

## Scale and Expand

Enhance dataset diversity and model accuracy across various environments.

2

## Forge Partnerships

Engage with government, private sector, and civil organizations for support.

3

## Monitor and Evaluate

Regularly review project outcomes and refine for optimal effectiveness.

