Human Detection in Real Time

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Agenda

01

Welcome and Introduction

Description of a primary heading

02

Business Context and Problem

Understanding the need for real-time human detection in various industries.

03

Solution Overview

An overview of the proposed human detection solution.

04

Dataset and Methods

Details on the datasets used and methodologies applied.

05

Results and Evaluation

Summary of findings and evaluation of the solution's effectiveness.

06

Future Work

Discussion on future developments and enhancements in human detection technology.

07

Q&A

Open floor for questions and discussions.

Business Context and Problem

Increasing priority on safety and security in companies.

A response to the growing concerns for personnel and asset protection.

Need for an efficient human detection system.

Essential for enhancing surveillance capabilities.

Focus on critical areas within organizations.

Targeting high-risk zones to ensure safety.

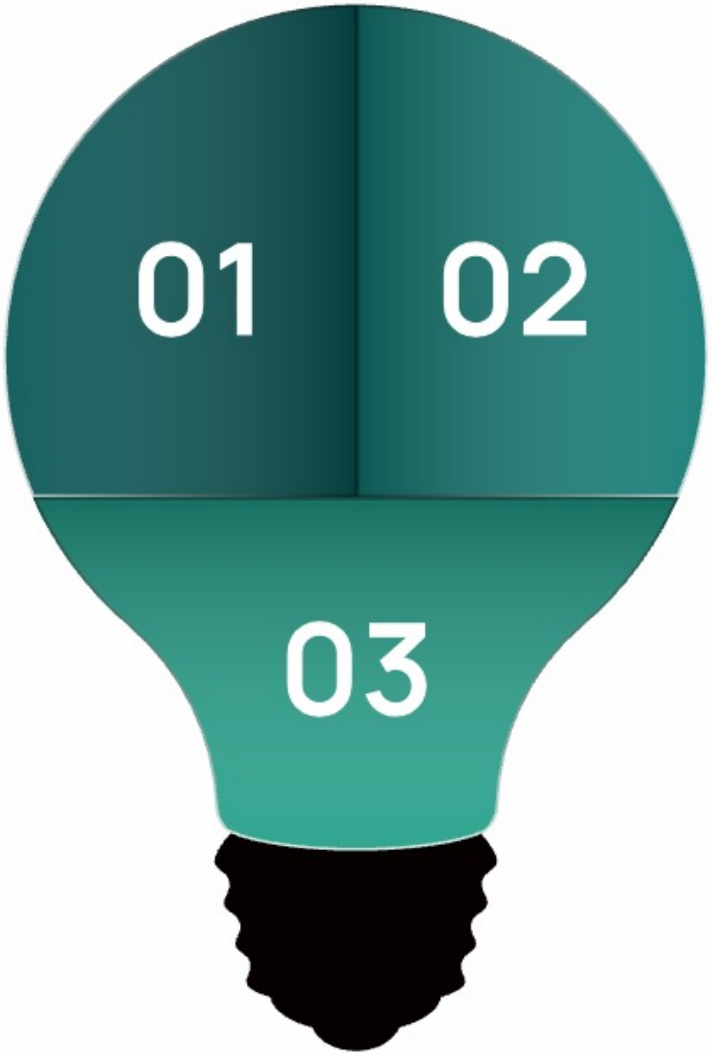
Enhancing overall safety of personnel and assets.

Aimed at improving the security measures in place.

Solution Overview

Utilization of YOLOv8n model for human detection.

The YOLOv8n model processes images and videos efficiently for real-time identification of humans.



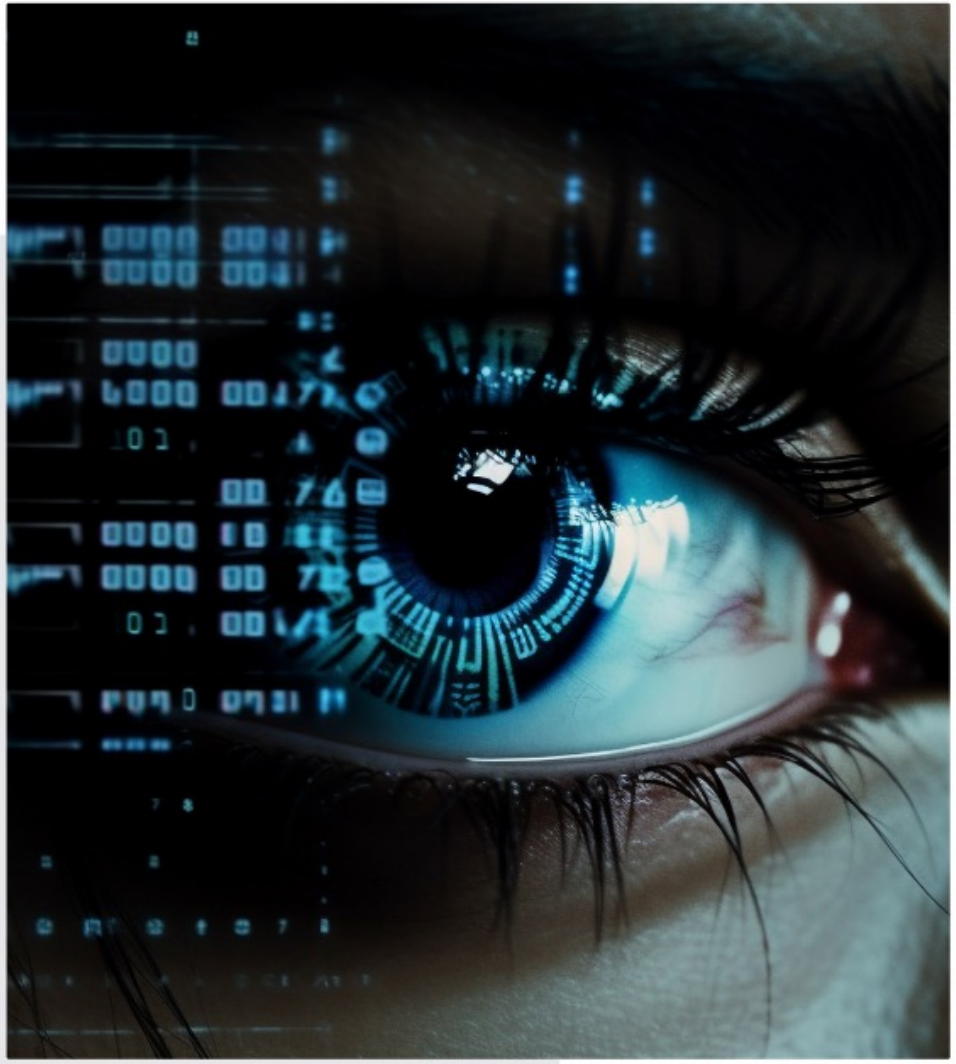
Real-time processing capabilities.

Enables immediate detection in various scenarios, enhancing responsiveness.

Web application interface for user interaction.

Users can upload images, stream video, or activate a webcam for live detection.

Dataset and Methods



- Used YOLOv8n for initial detection.
- Performed transfer learning with the WiderPerson dataset to improve model generalization.
- Developed a simple web app for demonstration purposes.

Results and Evaluation

01 **Promising results in human detection**

The implemented model has shown effective capabilities in identifying humans across different environments.

02 **Focus on accuracy and processing speed**

Emphasis on optimizing both the precision of detection and the speed at which it operates.

03 **Further evaluation needed**

Real-world performance assessment is necessary to validate the model's effectiveness in practical scenarios.

Future Work

Enhancing model accuracy with additional datasets.

Expanding the application to handle more complex scenarios.

Integrating with existing security systems.