

Project Design Phase

Proposed Solution

Date: 19th September 2023

Team ID: Team - 592816

Project Name: Project - Arming Against Violence - Yolo-Based Weapon Detection

Maximum Marks: 2 Marks

S. No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Creating an automated web-based system to detect firearms in images and videos, our project addresses the need for rapid identification of weapons in security footage. By leveraging machine learning, the goal is to enhance early threat detection, enabling prompt response from authorities and improving overall public safety.
2.	Idea / Solution description	Our solution merges YOLOv8's potent object detection with a user-friendly Flask web app for rapid firearm identification in images and videos. This innovative system ensures swift and accurate threat detection, fostering a proactive approach to enhance public safety through advanced security surveillance.
3.	Novelty / Uniqueness	Our project uniquely integrates YOLOv8 and Flask for firearm detection. This blend of advanced object detection and user-friendly design sets our system apart, providing swift and precise threat identification in images and videos—an innovative solution for enhanced security.
4.	Social Impact / Customer Satisfaction	Our project enhances public safety by swiftly detecting firearms in security footage. With a user-friendly Flask interface, it ensures customer satisfaction through easy interaction—a dual focus on societal impact and user experience.
5.	Business Model (Revenue Model)	We offer a subscription-based firearm detection service for businesses and institutions. Users access real-time alerts and customizable features. Our revenue comes from tiered subscription plans, ensuring a sustainable model for ongoing service enhancement.

6.	Scalability of the Solution	Built for growth, our solution scales effortlessly to handle increased data and user demands. YOLOv8's efficiency and the flexible Flask web app architecture ensure seamless adaptation to varying security requirements.
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