**Title of the Project:** YOLOv8 Garbage Overflow Detection with Flask Web App  
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**ABSTRACT:**

Urban sanitation and waste management are major challenges in modern cities. Overflowing garbage bins not only cause unhygienic conditions and foul odors but also contribute to the spread of diseases and environmental pollution. Traditional waste collection methods rely on manual inspection, which is slow, inefficient, and prone to human error.

This project presents a **real-time garbage overflow detection system** using **YOLOv8**, a cutting-edge deep learning object detection model, integrated with a **Flask-based web application**. The system can process live video streams or uploaded images to automatically detect overflowing bins. Upon detection, it provides instant notifications, enabling municipal authorities to take timely action.

The approach combines **computer vision, deep learning, and web technologies** to deliver an efficient, scalable, and user-friendly solution for smart urban waste management. The project demonstrates the practical application of AI for socially relevant problems, aiming to improve public health, cleanliness, and operational efficiency.

The proposed system can be extended to monitor multiple locations simultaneously, integrate with IoT devices for automated alerts, and serve as a model for **smart city initiatives** that leverage AI to enhance urban living conditions.