

based systems. Python is used as the primary programming language for the development of the Smart Surveillance System.

OpenCV

OpenCV (Open Source Computer Vision) is a library of programming functions mainly used for real-time computer vision applications. OpenCV provides a set of functions for various computer vision tasks, including object detection, tracking, and recognition. OpenCV is used in the Smart Surveillance System for image processing and computer vision-based tasks.

YOLOv3

YOLOv3 (You Only Look Once version 3) is a state-of-the-art object detection algorithm that is used for real-time object detection. YOLOv3 is used in the Smart Surveillance System for real-time people tracking and detection.

Streamlit

Streamlit is a web application framework that allows developers to create interactive web applications with Python. Streamlit is used in the Smart Surveillance System to create a user-friendly web interface that allows end-users to monitor and track movement in real-time.

TensorFlow

TensorFlow is an open-source machine learning framework developed by Google. TensorFlow is used in the Smart Surveillance System for machine learning-based tasks, such as object recognition and tracking.

NumPy

NumPy is a library for the Python programming language, adding support for large, multi-dimensional arrays and matrices, along with a large collection of high-level mathematical functions to operate on these arrays. NumPy is used in