Computer Vision Traffic Sensor for Fixed and Pan-Tilt-Zoom Cameras

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PROJECT OVERVIEW

This project aims to develop a vision-based traffic sensor for collecting data such as vehicle counts, speeds and classification using fixed or pan-tilt-zoom (PTZ) cameras. The sensor uses a novel algorithm to handle perspective changes and occlusions which are frequently encountered in congested traffic conditions, especially at camera heights of less than 40 feet. The sensor has been under operation for more than a year at two locations under varying weather conditions with more than 90% accuracy.

FEATURES

- Compatible with variety of analog and IP cameras
- Provides counts, speeds and classification
- Ability to record output video for verification
- Simple six-click calibration for fast and easy setup

SENSOR INSTALLATIONS

Maryland   New York

- AC powered
- Analog PTZ camera

- Solar powered
- Fixed IP camera

RESULTS