Gifted Education Fund

AloT Coding, Engineering and Entrepreneurial Skills Education for Gifted Students Keeping Streets Safe

Student: 26 Sun Young Ll

Objective/Background/Motivation

- Traffic accidents caused 1.35 million deaths on roads in 2016 alone
- This is mostly due to ignorance of road safety rules and traffic habits
- ·Monitoring of driver and pedestrian habits can help to reduce traffic accidents
- · I plan to create an automated system in which road traffic is monitored
- ·By taking factors like pedestrian count and maximum vehicle speed into account

Existing Solution

- ·In China, CCTV cameras around roads are already used to monitor road conditions
- ·However, they only process image recognition data and cannot do much to prevent drivers from violating traffic rules
- Traffic recognition makes use of computer vision to detect vehicles and pedestrians as well as figure out car plates
- The video stream is sent directly police force and other law enforcement for ease of tracking of the vehicle.

Your Solution

- •Design a smart monitoring system with computer vision to determine the speed of vehicles, the locations of any road obstacles and pedestrians.
- •Determine if the speed of vehicle violates any specific rules / laws regarding such road
- •Notify the driver about the violation of traffic regulations with a text message / app terminal by combining supervised learning (SVM), linear regression and computer vision

