TRaffic oracle project Major planning Areas

The NADS

# Detailed Requirements:

## Functional Requirements (What the system should do)

* Solution will indicate the likelihood of a car deviating off-course

## Non-Functional Requirements (How the system will work)

* System must gather time, position, and velocity data
* System must identify single lanes, double lanes, and cars going in opposite directions
* System will have a neural network that places cubes and vertices on vehicles to determine their shape

# Requirements Stability Known

Indicating the likelihood of a car deviating off-course is a stable requirement for us. Other requirements, however, may be altered.

# Risks

* System may not be able to distinguish what is a lane or car
* System may break privacy laws without proper care.

# Project Scope

Three phases

* First: Basic application and detection of moving objects
* Second: Web crawler and data collection
* Third: Machine learning and analysis

First phase date: March 5 - April 19

Second Phase and Third Phase: April 19 - TBD

# Project Supervision

Ali – Project Supervisor

Richard – Secretary

# Development Environment Checklist

* Install Java
* Install Eclipse
* Install OpenCV
* Find APIs for Cameras
* Pick a platform for data management, storage, processing

# Other Notes/Ideas

Gather data from inside vehicles too, or just strictly work with webcams?

If we took a basic cube on top of a car and added vertices in real time, we have an idea of the shape of the car. We can use it to do collision detection. Solves issue of one car overlapping another car.