# *Creating Safer Streets through Crowdsourced Traffic Studies*

The Santos Family Foundation SCOPE team continued the work from previous years' SCOPE projects, creating a software platform for Advocacy Groups and Traffic Engineers to create meaningful safety metrics from video footage of an intersection. As well, the team focused on continuing work outside of the SCOPE program by starting multiple pilots in the local Boston area.

## The User's Problem

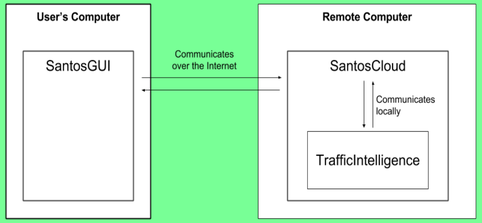

Town Traffic Enginners

Advocacy Group Meeting

**Traffic engineers** and **advocacy groups** need quantitative data to show measurable change. They currently enlist staff to manually count bikes and cars at intersections. **Manual counting is costly** in worker-time, and the type of **data collected is not focused** enough on safety. With a system able to collect these metrics, individuals could more effectively make change.

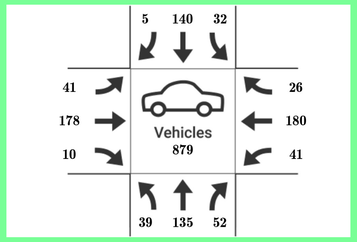
## Our Software Solution

### Delivering Industry Standard Tools to Everyone




#### Scalable Processing Platform

We created a server that allows users to analyze videos using Dr. Nicolas Saunier's TrafficIntelligence library without requiring user installation



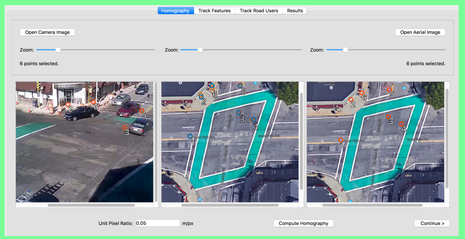

#### Improved Safety Metrics

We improved object classification using a neural network, and created an algorithm to track turning counts to provide informative safety metrics

### Providing a Simple Roadmap to Meaningful Impact

#### Helpful Info for Video Collection

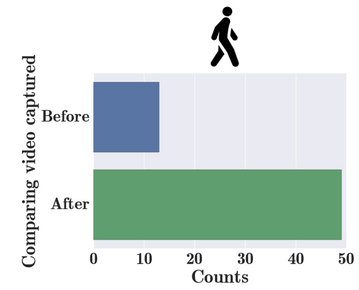
We wrote a video collection guide to ensure that users can get access to videos to analyze the intersection




#### Dependency-Free Desktop Application

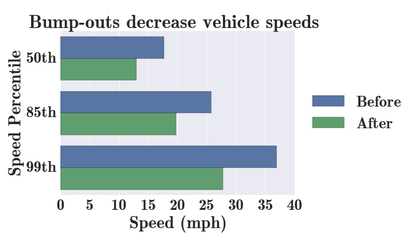
We packaged a desktop application to allow users to create and configure projects for processing

## Helping Advocacy Groups




Neighborways, an advocacy group, needs our system to show via metrics that transforming streets into neighborways results in **more kids walking to school**.

## Helping Traffic Engineers




Communities pilot traffic interventions such as turning lanes or bump-outs, and need our software to **provide quantifiable data** to determine which interventions are effective.

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