

## Smart City C-tran Project Plan

Hui-Yu Sim, Marcus Kwong, Brian Allen, Tarun Singh

### Project Objective (1-2 sentences)

C-Tran stop positioning project focused on quality assurance of static transit stop GPS coordinates. These coordinates will be checked against the dynamic stop data coordinates of transit vehicles.

### Project Approach (1-2 paragraphs)

**Data:** We will begin the project by understanding the data and remove any data type that will not be used in this project. Once we have removed unused data type, we begin pre-processing the data, remove any outliers and determine if those outliers are justified. Once the outlier data have been removed, we want to plot the coordinates and compare with the transit route to remove any additional inaccurate data.

**Implementation:** Use the pre-processed data to input into our implementation design. We are determining the accuracy of each transit stop, so we will compare dynamic and static coordinates applying 95% confidence interval or another type of static analysis to determine if the transit stop is accurate.

### Team structure (3-4 sentences)

All team members will work on “questionnaires” from c-tran that would help us pre-process the data and understand the data. Hui Yu and Brian will work on pre-processing on the data and Marcus and Tarun will work on the implementation with maybe machine learning models. All four of us will help each other since C-tran project will be worked on beyond this course

### Project milestones (5 milestones)

We've presented the project first, so our project plan due at week 4

Milestones	1	2	3	4
7/16 (week 4)	Project Plan	Understand C-tran data	Setup Github	Begin midpoint report
7/23 (week 5)	Meet with C-tran	Schedule meeting with Professor for next week (week 6)	Finish Midpoint report	After meeting with c-tran, come up with a design that would satisfy the project
7/30 (week 6)	Begin implementation	Analyze the data		
8/6 (week 7)	Finish implementation	Analyze the data	Preparing for final presentation	
8/13 (week 8)	Final Presentation			