Journal Report 17 2/17/20 - 3/1/20 Richard Zhan Computer Systems Research Lab Period 2, White

# **Daily Log**

### **Tuesday February 18**

I watched a few videos that described OpenStreetMap's features.

# **Thursday February 20**

I looked into the use of MapBox. It seems to be a good backup in case I run into difficulties with OpenStreetMap.

### **Monday February 24**

Absent.

# **Tuesday February 25**

I watched videos that described how to download OpenStreetMap data. However, I'm still not completely sure how to/if I will use OpenStreetMap for my real-world maps.

### **Thursday February 27**

I began to test my program on larger simulations that involve higher numbers of cars, roads, and vertices.

#### Timeline

Date		Goal	Met
1/20/20	-	Test varying percentages of DTD	Yes
2/2/20		population	
2/3/20	-	Visualize input data on web server	Yes
2/16/20		without running the program	
2/17/20	-	Research how to import real maps	Partially, still need a lot more research
3/1/20		from OpenStreetMap	to use the OpenStreetMap API
3/2/20	-	Create larger maps that account for	
3/8/20		more scenarios	
3/9/20	-	Depending on the previous week's	
3/15/20		results, make adjustments in program	
		to allow larger maps to run efficiently	

### Reflection

This week, I researched methods to import real world maps and convert them into usable map files for my simulation program. This would let me demonstrate the effectiveness of my program in the real world. After our discussion, I have decided to change the next goal of my project from importing real world maps to testing larger, fictional maps. This makes sense since I should ensure that my simulation works for larger maps before I start importing real world maps.

# Year-End Goal

A: Simulation runs successfully on larger scale maps. I have records of the effectiveness of my DTD-navigation system on different types of maps. My Git repository has detailed instructions on installation and running the program. My paper effectively describes my project and my process of research throughout the year. I am able to explain my project to other students during the TJ Star presentation and answer all questions.

B: Simulation runs successfully on multiple small and medium-sized maps. I have records of the effectiveness of my DTD-navigation system on multiple maps. My Git repository, presentation, and paper provide useful information that will allow others to replicate my work.

C: Simulation runs successfully on small, basic maps. I have records of the effectiveness of my DTD-navigation system on at least one map. My Git repository, presentation, and paper *exist*.