

sdmay19-18: Real time Route Optimization

Week 8 Report

November 5 - November 11

Team Members

Junjie Wen — *Backend Developer; Data Analytics Lead*

Zhanghao Wen — *Product Manager; Technical Writing; Weekly Status Report*

Yuhang Xie — *Web Developer; UI Lead*

Xinhe Yang — *Web Developer*

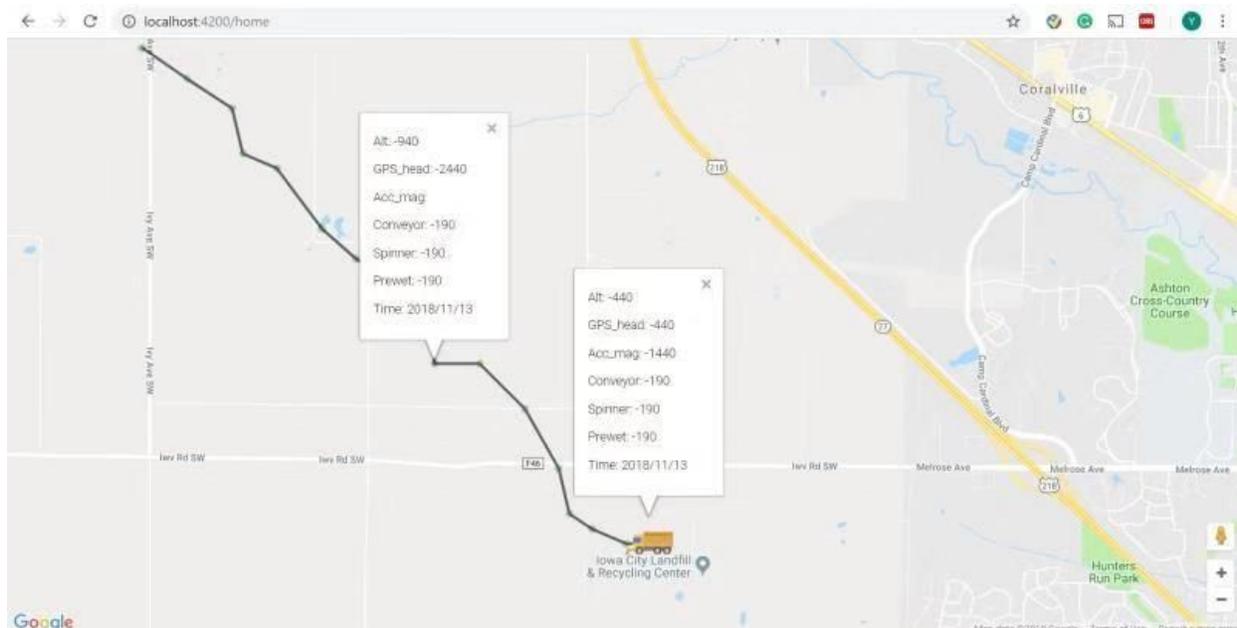
Tianhao Zhao — *Communication Leader*

Summary of Progress this Report

- Represent the path of a truck based on GPS information from simulator.
- Login web page can allow company accounts (manager/dispatcher/operator) to login.
- Improve on simulator.
- Path of truck can display data with update of every 5s interval during one operation.

Past Week Accomplishments

We can show the path of truck based on GPS data from the simulator on the frontend interface. The path writes new data on a new dot with update rate of 5s/time. It also stores previous data on its path.



We improve on our simulator to make it close to reality, so that the truck can turn into different directions (except the opposite way of current direction).

The following problems are solved:

- The moving route adds a dot to record the information status of the truck at that point.
- While the truck moves (the webpage updates), the existing data window disappeared.

So if user want to know the truck status at specific location, for example on a bridge or at a crossroad, user can click the nearest dot or nearby dots on the path to achieve that information.

Pending Issues

1. Store and represent history data of trucks (with disappearing of old data).
 2. Build an easy sign up page for company and related personnel.
 3. Documentation: revise project plan, design document.
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Plans for Upcoming Reporting Period

We will try to continue implementing what we have done on the web interface, reaching how much data we can store and control below a certain cache size. We are using the AngularJS calendar framework which allow the user to pick a specific date, then the map will show the record of fleets’ path on that date. This sort of historical data will help analyze the relative info of snow operations, and predict the needs for operations of similar weather and road conditions.

We are also thinking about building an easy sign up page in case we need at some points. In addition, we will focus more on preparing for presentation. Therefore, maybe not a lot of progress will be made at the current stage.

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Junjie Wen	Improve the simulator for front-end testing purpose	8	60

Zhanghao Wen	Consider possible scenarios about project, modify project plan, weekly report, and manage Trello.	5	68
Yuhang Xie	Web UI for displaying truck and its data.	5	61
Xinhe Yang	Web UI for displaying truck and its data.	8	58
Tianhao Zhao	MoM recorder, meeting with client, help with project	5	52

Gitlab Activity Summary

Code is committed to members' local repository.
