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Honda Mobility Hacks

Can we incentivize drivers to use safer routes by gamifying insurance discounts?

Who would benefit?

Drivers

Insurance Companies

Pedestrians,
General Public

How?

Near real-time data from driving trips for baseline (*autonomous_driving_data*)

Additional data points related to proximity of school zones, count of construction sites, traffic congestion, & roadway events (*MapQuest API*)

Map for driver to select between most direct route versus an alternate, safer route

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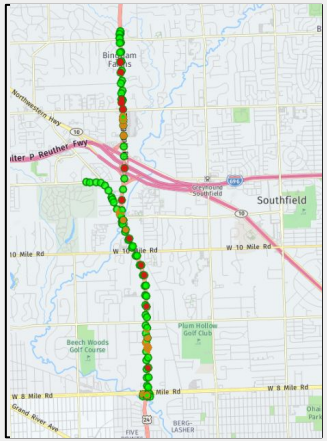
Destination: *330 E. Liberty St. Ann Arbor, MI*



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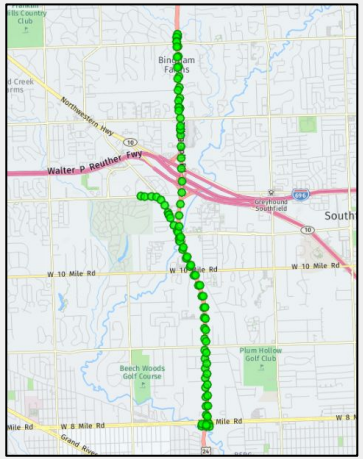

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Current Streak ≤ .5	Longest Streak ≤ .5
2	**19**

Trip #	Start	Destination	InsurCent
734	Home	Kroger, 400 S Maple Rd	.44
733	Daycare	Home	.71
732	*untracked trip*	*untracked trip*	*N/A*
731	DTW	22051 Cherry Hill St	.83

The Flow

JavaScript grabs latitude and longitude for a given driveScenarioId from autonomous_driving_data, calculates a bounding box, and hands-off bounding box coordinates.

Python grabs a bounding box, calls MapQuests API and finds

- number of events
- schools
- fire stations

within the bounding box.

Python API gets-

schools < .7 km

firehouses < 1.2 km

traffic events < 4 km.

If Accident - High severity

If construction Low severity *

Find average impact along route

Count schools & firehouses

Sums values to calculate normalized InsurCent [0.0-1.0]

The lower the index the safer the trip, the greater the incentive from insurance provider.

Future Updates

- Drive Check Questionnaire
  - self-reported variables
    - alertness
    - sleep
    - urgency of trip

- Integrating activity watch data

  → fatigue/impaired driving