

Project Title: Telematics Based Driver Behaviour Intervention for Fleet Safety

This opportunity usually occurs during the following days/hours: Monday - Friday

Hours Per Week: No more than 15 hours per week

Position Description:

This project seeks to enhance fleet safety within the City of Toronto's Transportation Services Division by focusing on light-duty vehicle fleet drivers and targeting risky driving behaviors.

The project's objectives are to further reduce preventable collisions within the light-duty vehicle fleet by: (1) identifying the root causes of these collisions, such as intentional rule violations, attentional lapses from fatigue, and mobile phone use while driving, along with underlying risk factors like driver perceptions and safety climate; (2) identifying potential intervention opportunities to mitigate these risk factors; and (3) conducting a pilot test of a promising intervention. Employing a mixed-methods approach, the project has completed review archival data (e.g. incidence reports) and policy documents, as well as other quantitative data (e.g. telematics), followed by new qualitative and/or quantitative data collection with fleet personnel. Cumulatively, these efforts lead to the development of a tailored intervention which will be implemented and evaluated. The intervention will be focusing on utilizing telematics-based data to provide regular driver feedbacks.

The research assistant will collaborate closely with a postdoctoral researcher, and a PhD student. The research assistant will assist with tasks related to objective 3, including extracting telematics data from the Geotab system, automating data analysis process, developing relevant app or web page interfaces for providing feedback and assisting other tasks related with the implementation of the intervention and preparing relevant publications and reports.

Desired Qualifications:

- Experience with JavaScript/React for mobile dashboards
- Experience with API integration (Geotab telematics data)
- Experience with SMS systems (Twilio)
- Experience with Data visualization and processing
- Excellent verbal communication skills.
- Demonstrated experience in JavaScript and Python as well as web application development

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