



PhD Student Position - 2025

Department of Civil Engineering, Schulich School of Engineering
University of Calgary

Description:

Dr. Merkebe Demissie and Dr. Lina Kattan are recruiting a PhD student to begin their studies in 2025 (starting in May or September). The student will pursue a PhD in the Department of Civil Engineering, specializing in Transportation Engineering. The research will focus on developing a holistic approach to enhancing freight planning and operations through two interconnected objectives: (i) Analyzing commodity flows using goods value, weight, and volume metrics to track inbound and outbound movements in urban settings and (ii) Applying advanced statistical methods and contemporary machine (deep) learning models to predict commodity flows. This project provides access to various proprietary and open data sources from North American cities. The dataset includes up to 40 commodity groups, which can be further disaggregated into over 400 industry types.

Qualifications:

- A master's degree in Civil Engineering, Electrical Engineering, Software Engineering, Computer Science, Mathematics, Data Science, Statistics, or a related field.
- Experience in transportation demand modeling and applying machine (deep) learning models to various problems.
- Excellent written and oral communication skills.
- Strong programming and technical skills in Python, R, MATLAB, or similar languages

Application process:

Interested candidates should email Dr. Demissie at merkebe.demissie@ucalgary.ca with the subject line "Freight Movement Modeling - PhD", and include the following materials:

- Current CV
- A one page cover letter
- A writing sample as a first author (e.g., journal article, report, thesis, and data/software products, etc.)
- A proposal on related topics (Optional)

The review of applications will begin immediately. Applications will continue to be accepted until the position is filled. ***If we receive a high volume of applicants, we will only be responding to shortlisted candidates. We apologize for any inconvenience.***

NOTE: Applicants should verify that they meet the PhD admission requirements for the Civil Engineering Department at the University of Calgary.