Postdoctoral Opportunity to Work on Transit Demand Management with Discrete Choice Experiments and Recommender Systems

Area of Research: transit operations; big transit data; Discrete Choice Experiments; machine learning; recommender systems

Overview of Position:
You will be joining a team of researchers and BusPas Inc. (an affiliate of ISR Transit) as part of BusPas Inc.'s large project on transit demand management. You will help develop transit-related Discrete Choice Experiments and machine-learning based Recommender Systems to develop methods of transit demand management. The project will use large quantities of Big Transportation Data collected by and organized with BusPas and ISR Transit's data integration systems. The project is led by Zachary Patterson director of Concordia University's TRIP Lab, Nizar Bouguila of the Concordia Institute for Information Systems Engineering (CIISE) and Owen Waygood of Polytechnique Montréal.

We are seeking a candidate for up to three years (May 2020 — April 2023). The candidate will be based part-time at BusPas Inc. and part-time at their choice of Polytechnique Montréal or Concordia University, in Montreal, Canada. Montreal was recently voted the best city in the world for students (2017 QS Best Student City rankings). Montreal has a very rich history and is a gorgeous, bilingual (French, English), multicultural, lively city in the Canadian province of Quebec with a population of around 4 million. The city is also known as "fun city" with many touristic attractions in the city and beautiful nature all around. The city is host to several Festivals (Jazz, Just for laughs) and many other activities and events.

Description of Duties
We're seeking a candidate capable of supervising and managing a team of PhD and Master's students working on the development of transit-related Discrete Choice Experiments as well as Recommender Systems based on Machine Learning. The candidate will also interact with BusPas Inc. and three other project teams working on the larger transit demand management project. The candidate will have funding for attending conferences to present work on this project.

Required qualifications:
- PhD computer science, transportation engineering or relevant degrees awarded within the past 5 years;
- Knowledge of discrete choice experiments and modeling (including discrete choice modeling);
- Excellent personal time management, project management and organizational skills;
- Be imaginative and open to testing different theories related to individual choice behaviour.

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For more information, or to apply, please contact: Zachary Patterson (zachary.patterson@concordia.ca), Nizar Bouguila (nizar.bouguila@concordia.ca) or Owen Waygood (owen.waygood@polymtl.ca).
When applying please send us your latest C.V., 1-page research statement, and 2-3 representative research articles.