Postdoc at the University of Toronto – Stochastic Modeling and Analytics for Healthcare Operations

Position Summary

We are seeking a Postdoctoral Fellow to carry out research at the interface of stochastic modeling and healthcare operations, specifically, on abandonment in observable queueing systems with application to emergency departments.

The successful candidate will contribute to the project “The Effects of Queue-Related Information on Abandonment in the Emergency Department: Modeling, Performance Evaluation and Optimization” and will be co-supervised by Philipp Afèche (Rotman School of Management, University of Toronto), Rouba Ibrahim (School of Management, University College London) and Vahid Sarhangian (Mechanical and Industrial Engineering, University of Toronto).

The overarching goal of the project is to develop novel models that better capture key features of abandonment behavior in observable queueing systems and that are useful in evaluating and understanding the impact of informational and operational controls. The empirical component involves validating abandonment models based on patient-level data from an emergency department at a major US hospital. The theoretical component involves developing analytically tractable queueing models that incorporate this abandonment behavior.

Qualifications

- PhD in Industrial Engineering, Management Science, Operations Research, Operations Management, or related fields.
- Strong expertise in three areas: (1) queueing theory, (2) models and methods for statistical estimation, including regression and structural estimation, (3) strong computational skills, including developing and evaluating simulation models and their results.
- Excellent communication skills.

Salary: The annual salary will be CAD 50,000 plus benefits.

Expected start date: The position is available immediately.

Term: One-year term with a possible renewal.

Application instructions: The application review will start immediately and continue until the position is filled. To apply please email the following materials in PDF format to afèche@rotman.utoronto.ca:

- CV, including contact information for at least two references
- A research statement
- Sample of research papers