



JOB POSTING – POSTDOCTORAL FELLOW

Areas of Research: Material flow analysis, built environment, cities

Overview of the position:

Applications are invited for one postdoctoral position in urban material flow analysis (MFA).

The objective of this study is to quantify and analyze construction material use in the urban built environment from the bottom up. This goal of this work is to inform future urban development patterns, material use and associated environmental, social and economic outcomes.

The postdoctoral fellow will have a suitable research and/or industry background and be a lead contributor to peer-reviewed publications, technical reports, conference proceedings and in-depth interactions with research partners. The postdoctoral fellow will join a research group focused on investigating the relationship between the infrastructure we build and the society we create. In addition to acting as a lead contributor on this research project, the fellow is expected to actively engage with other researchers in the group (e.g., regular attendance at group meetings, providing advice to graduate students).

Description of duties:

The candidate will contribute to:

- Conducting an extensive literature review on urban MFA
- Assess the stocks and flows of construction material use in horizontal and vertical infrastructure
- Develop a framework for recommendations for future urban developments

Salary: \$58,000/ year + benefits

Please note that should the minimum rates stipulated in the collective agreement be higher than rates stated in this posting, the minimum rates stated in the collective agreement shall prevail.

Required qualifications:

- PhD degree in engineering, architecture, industrial ecology, or related field awarded within the past 5 years
- Experience managing large datasets containing confidential data
- Excellent communication skills in English
- Desire to engage in applied research with near-term applications
- Demonstrated ability to work independently and as part of a team and a drive to create their own novel research direction
- Experience with BIM is a plus
- Experience with machine learning is a plus

- Experience with design/construction documents and software is a plus
- Experience with ArcGIS and ESRI CityEngine or similar is a plus

Application instructions

All individuals interested in this position should submit a single electronic file consisting of a cover letter, detailed CV, a one page statement of research interests, and the names and addresses of three references to Prof. Shoshanna Saxe (s.saxe@utoronto.ca) by the closing date. Please use the subject line **Application for Urban MFA postdoctoral fellowship**.

Closing date: April 30th 2019. The search will continue until the position is filled.

Supervisor: Prof. Shoshanna Saxe

Expected start date: Late summer/Fall 2019

Term: 1 year, renewable

FTE: 1

Employment as a Postdoctoral Fellow at the University of Toronto is covered by the terms of the CUPE 3902 Unit 5 Collective Agreement.

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The normal hours of work are 40 hours per week for a full-time postdoctoral fellow (pro-rated for those holding a partial appointment) recognizing that the needs of the employee's research and training and the needs of the supervisor's research program may require flexibility in the performance of the employee's duties and hours of work.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ persons, and others who may contribute to the further diversification of ideas.