Two Postdoctoral Positions in Wildfire Science, Lidar, and Fire Behaviour Modelling

The James Lab (www.jameslab.ca) at the University of Toronto is currently looking for collaborative, enthusiastic, and creative post-doctoral researchers to contribute to cutting-edge projects in lidar-based fuels assessment and fire behaviour to improve fire risk modelling and mitigation.

Two positions are available. The first position will focus on integrating multiple forms of lidar and statistical modelling to rapidly characterize fuels using novel remotely sensed data. The second position will focus on using prescribed burns and simulation to characterize landscape-scale fire hazard and improve understanding of wildfire behaviour in novel fuel types. Both positions are part of a large inter-disciplinary project focused on reducing fire risk through better fuels characterization.

The successful candidates will have the opportunity to interact with university researchers, provincial and federal government scientists, as well as other students and post-docs from across Canada who are also examining questions related to disturbance ecology, fire behaviour, lidar, remote sensing, and fire / forest management.

We are specifically looking for a highly technical and conceptually competent wildfire researchers to take leadership roles in this large multi-faceted project.

General Qualifications

- Completed PhD in Forestry, Wildfire Science, Remote Sensing, Computer Science, or related field

- Strong expertise in statistics, high-performance computing, GIS, and remote sensing

- High level programming proficiency (e.g., Python, R)

- Excellent oral and written English communication skills

- Previous post-doctoral experience will be considered an asset

Specific qualifications

- Demonstrated experience with lidar (TLS, ALS) data collection and processing (e.g., lidR, Computree, CloudCompare) [PROJECT 1]

- Demonstrated experience with wildfire behaviour models, simulation modelling, fuel mapping, and/or fire risk assessment [PROJECT 2]

Funding will be competitive and commensurate with qualifications and will include health and dental benefits. Up to three years of funding is available for each position. Support will also be provided for field work, professional development, and conference travel. More information about post-doctoral positions at the University of Toronto can be found here: https://postdoc.sgs.utoronto.ca/

To apply, please send a short letter of motivation outlining how you meet the qualifications above, your preferred project, your CV, recent transcripts, and the names of three academic references to Dr. Patrick James: patrick.james@utoronto.ca

We are looking to fill these positions as soon as possible.