Master of Science Student Position in Analysis of Canadian Blizzards

Applications are invited for a MSc position at the University of Manitoba in climatology with a focus on blizzards in the Canadian Prairies (details below). This position includes two years of funding via Research Manitoba New Investigator Operating Grant #6466.

Research Overview
The student in this position will utilize surface weather stations and the ERA5 atmospheric reanalysis to create a database of historical (1950-2023) blizzard events across the Canadian Prairies. Weather stations will be used to calibrate the blizzard detection algorithm for ERA5, which provides better spatial and temporal coverage than stations alone. Next, three regional climate models will be used to examine how blizzard events in the Canadian Prairies are projected to change in the future (to 2100). Combined, the historical and projected databases will foster a comprehensive examination of how modern global warming has and will impact blizzard events throughout the Canadian Prairies. These results will have direct implications for winter weather preparedness in Prairie communities.

Applicants with a variety of undergraduate majors and work/life experiences are welcome. The ideal applicant will a) be enthusiastic about climate science, b) have some background in climatology, meteorology, or atmospheric physics, and c) be competent in one or more coding language, such as Python, MatLab, or R.

About the Institution
The student will be enrolled in the Department of Environment and Geography, University of Manitoba, and join the Centre for Earth Observation Science (CEOS), housed in the Clayton H. Riddell Faculty of Environment, Earth, and Resources. CEOS is a research centre founded in 1994, with a mandate to research, preserve and communicate knowledge of Earth system processes. CEOS is multidisciplinary and collaborative, drawing on researchers from different areas and faculties at the University and elsewhere.

Application Information
To apply, please send a short (1 page) statement of your relevant background, experience, and aspirations for this position, as well as your CV or resume, University transcripts, and the contact information for two referees. International students with English as a second language are also required to submit an English language test score, such as TOEFL or IELTS. Application materials and any questions should be sent by email to Dr. Alex Crawford (alex.crawford@umanitoba.ca).

Applications will be accepted until the position is filled, but preference will be given to applications received by August 23, 2024.