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New Research Assistant opportunity on:

## Regional water-food security assessment under extreme events in western Canada

The **Watershed Science & Modelling Laboratory** (WSML) of the Department of Earth and Atmospheric Sciences at the University of Alberta is looking for one innovative and highly motivated candidate to develop models and conduct research on “*regional water-food security assessment under extreme climate events in western Canada*”. The successful candidate will work with and/or enhance the existing process-based agro-hydrological models and high resolution data at the WSML for agricultural watersheds of western Canada. More specifically, the candidate will contribute to understanding of virtual water transfers through trade of water-intensive commodities and management options to alleviate water scarcity while also sustaining food production under extreme climatic events in prairie watersheds of western Canada. For this, the candidate is expected to analyze the existing model-based data at the WSML and develop collaborative publications as well as their independent publications at the WSML. The end goal is to provide scientifically credible knowledge for sustainable management of water and food resources in an uncertain future.

### Qualifications and Specific Skills

- **MSc or higher** degree in Civil and Environmental Engineering, Water Resources and Agricultural Engineering, Earth and Environmental Sciences or a closely related fields.
- Knowledge and understanding of watershed hydrology, food-water relations, and extreme climatic events such as droughts or floods.
- A prior experience and knowledge of developing multi-criteria **optimization algorithms** and water management analysis working with large datasets.
- A strong background on programming. Proficient knowledge of scripting in **R** (preferred) or similar tools for large data processing required.
- Strong ability to work both independently and collaboratively, prioritize, adapt to rapidly shifting priorities and manage research projects from start to **scientific publication** is required.
- Strong ability to work in a diverse, interdisciplinary, and multiple cultural working environment
- Superior written, communication, and interpersonal skills for effective and efficient development of scientific publications and interaction with other researchers in the lab and in public

**Location:** Watershed Science and Modelling Laboratory (<https://cms.eas.ualberta.ca/faramarzilab>), Department of Earth and Atmospheric Sciences, University of Alberta.

**Term:** This is a full time position for one year and potentially for two years, depending on the performance of the candidate in the first year.

**Payments:** depending on the experience of the candidate the salary range is 45K-55K and benefits.

**Professional development:** opportunities for professional development and Candidate's growth, required for their future job opportunities, will be provided.

**Contact:** Send your updated CV to Dr. Monireh Faramarzi via [faramarz@ualberta.ca](mailto:faramarz@ualberta.ca)

**Closing date:** Hiring is immediate and position is open until filled.

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