

TIER 1 or 2 CANADA RESEARCH CHAIR IN BIG DATA ANALYTICS IN DIGITAL AGRICULTURE

The College of Agriculture and Bioresources (AgBio) at the University of Saskatchewan (USask) is pleased to invite applications for a Tier 1 or 2 Canada Research Chair appointment in Big Data Analytics in Digital Agriculture. This position will be located at the University of Saskatchewan in Saskatoon, Saskatchewan. The Canada Research Chair (CRC) Program is the flagship of a national strategy to make Canada one of the world's top countries in research and development (www.chairs-chaires.gc.ca).

The Canada Research Chair in Big Data Analytics in Digital Agriculture will lead an innovative research program in AgBio. They will serve as an interdisciplinary leader and integrator between multiple units and research areas in collaborating disciplines. The candidate will have both the research and collaborative skills enabling them to lead and facilitate digital agriculture research at USask.

Saskatchewan accounts for more than 46 percent of Canada's total field crop area with 14.9 million hectares. The province of Saskatchewan is a globally prominent producer of wheat, canola and pulse crops, featuring a diversified no-till production system. The province's agricultural industry is innovative and home to many technologically advanced practices and companies involved in no-till agriculture, autonomous machinery, and precision agriculture. The size and innovation of the industry fosters an entrepreneurial agriculture technology sector with many startup companies.

The College of Agriculture and Bioresources is one of Canada's most research-intensive agricultural colleges and is the home of a diverse and interdisciplinary group of more than 80 faculty members across five departments. Faculty researchers in AgBio actively engage in collaborative and innovative scholarship with a strong commitment to advance the responsible use of land, water and bioresources for the people of Saskatchewan and around the world. Our research is aligned with the [USask Signature Research Areas Agriculture – Food and bioproducts for a sustainable future](#). Our faculty and staff work collaboratively with and are committed to partnerships with diverse academic units, Indigenous and other communities, government departments, non-profit organizations, and private sector companies.

In addition to those within AgBio, the successful candidate will have the opportunity to collaborate with researchers across campus within several complimentary areas. The fully integrated [Crop Development Centre](#) combines basic research with genetic improvement of annual and perennial crops. USask is also home to the [Global Institute for Food Security](#), the [Global Institute for Water Security](#), and the [Canadian Light Source](#) - Canada's only synchrotron. Other organizations and facilities present on the University campus are the Department of Computer Science, Agriculture and Agri-Food Canada, the National Research Centre, and Environment and Climate Change

Canada. Researchers at these organizations, along with those in AgBio, are actively engaged in digital agriculture research, ranging from utilizing deep learning in crop imagery, tracking animal production and behavior, breeding of new crops, utilizing satellite imagery, and studying spatial variability in soil characteristics.

A CRC in Big Data Analytics in Digital Agriculture, coupled with AgBio's sustained commitment to research and teaching in digital agriculture, will ensure that the next generation of highly skilled workers understand the importance, potential and value of data. These graduates will be the knowledge workers that will understand applicable concepts and techniques of digital Agriculture such as machine learning and remote sensing. They will be able to solve complex problems and make decisions with multiple sources of information to best inform production and environmental decisions within agriculture. Future graduates will have greater marketability in the work force, as they will excel in being translators and applicators of data-driven decisions in the agriculture industry, from the production site to the boardroom.

The University of Saskatchewan is one of Canada's top 15 research-intensive universities. Its main campus is situated on Treaty 6 Territory and the Homeland of the Métis. The University of Saskatchewan is located in Saskatoon, Saskatchewan, a city on the banks of the South Saskatchewan River known for its quality of life, diverse and thriving economic base, a vibrant arts community and a full range of leisure opportunities. The University has a reputation for excellence in teaching, research and scholarly activities and offers a full range of undergraduate, graduate, and professional programs to a student population of over 24,000.

Qualifications

This call is for a Tier 1 Canada Research Chair position. However, a candidate may be selected, instead, for a Tier 2 Canada Research Chair. The successful candidate will be appointed as a faculty member in AgBio at USask, with the specific home academic department informed by the candidate's background. The successful candidate will have a demonstrated ability to utilize multiple large data sets to model processes, predict outcomes and inform decisions within agriculture to optimize production and/or environmental benefits. The successful candidate will have a strong and growing research track record, including experience working with broad and diverse sets of agricultural data post-completion of a relevant PhD (or equivalent). Experience working with data associated with areas of digital agriculture, such as remote sensing, crop phenomics, digital soil mapping, precision agriculture, and economics of agriculture, as examples, is expected.

For a Tier 1 Chair, the successful applicant will be appointed as a Full or Associate Professor. Tier 1 chairs are outstanding and innovative world-class researchers whose accomplishments have had a major impact in their field and are recognized internationally as leaders in their field.

For a Tier 2 Chair, the successful applicant will be appointed as an Associate or Assistant Professor. Tier 2 Chairs are intended for exceptional emerging scholars (i.e., candidates must have been an active researcher in their field for fewer than 10 years at the time of nomination). Applicants who are more than 10 years from having earned their highest degree (and where career breaks exist, such as maternity, parental or extended sick leave, clinical training, etc.) may have their eligibility for a Tier 2 Chair assessed through the program's Tier 2 justification process. Please contact the Research Acceleration and Strategic Initiatives (RASI) unit for more information (rasupport@usask.ca).

We are seeking candidates who have demonstrated excellence, innovation and creativity through an outstanding record of high-quality research with evident national and international impact in their field. The successful candidate will have experience leading a vibrant, externally funded research program. The successful candidate will be expected to make strong contributions to teaching (at primarily the graduate level) and mentoring that supports diversity and inclusion. Applicants should demonstrate excellence in and a commitment to supervision and mentoring of graduate students, postdoctoral fellows and other trainees. An exemplary ability to secure competitive external research funding, and a strong record of research output are required.

The successful applicant will be asked to prepare the CRC nomination with the assistance of USask and, if successful, will subsequently be appointed as a tenured or tenure-track faculty member in AgBio, with the specific home academic department informed by the candidate's background. The CRC nomination is subject to review and final approval by the Canada Research Chairs Program. The faculty appointment is conditional on approval of the CRC.

Salary bands for this position for the 2021-2022 academic year are as follows: Assistant Professor: \$98,178 - \$117,978; Associate Professor: \$117,978 – \$137,778, Professor: (\$137,778-\$160,878) with the possibility of merit-based additions. A CRC stipend is also provided, with guaranteed funding for equipment, infrastructure, and students. This position features a comprehensive benefits package which includes a dental, health and extended vision care plans; pension plan, life insurance (compulsory and voluntary), academic long term disability, sick leave, travel insurance, death benefits, an employee assistance program, a professional expense allowance, and a flexible health and wellness spending program.

How to Apply

Interested candidates must submit their application using the University's online application portal. Complete applications will include a detailed curriculum vitae, a research statement, a teaching statement, and the names and contact information of three references. As part of the application process, applicants will be asked to complete a voluntary employment equity survey.

Review of applications will begin March 2022. However, applications will be accepted and evaluated until the position is filled. The anticipated start date is July 2023.

The impact of leaves (e.g., parental leave, extended leave due to illness, etc.) will be carefully considered when reviewing the candidate's record of research achievement. Therefore, candidates are encouraged to explain in their application how career interruptions may have impacted them.

The University of Saskatchewan is committed to supporting employees in need of accommodation in an employment context. For more information on USask's accommodation policy, please contact carine.paley@usask.ca (306-966-6278).

The University of Saskatchewan is committed to employment equity, diversity, and inclusion in its faculty complement and are proud to support career opportunities that address the under-representation of members of the Four Designated Groups (FDGs) defined under the *Employment Equity Act* among chair allocations. In consideration of the University's strategic directions and to achieve the EDI targets and goals of USask's action plan and as established by the CRC Secretariat, this position is restricted to individuals who self-identify as a member of a

racialized minority. The University of Saskatchewan relies on section 56 of The Saskatchewan Human Rights Code to give this preference in employment. Recruitment will be guided by the Canada Research Chairs Equity, Diversity and Inclusion Practices (<https://www.chairs-chaire.gc.ca/program-programme/equity-equite/index-eng.aspx>) and by the strong commitment of the University of Saskatchewan and AgBio to equity, diversity and inclusion.

For questions related to this position or the selection process, please contact Trevor Crowe at trevor.crowe@usask.ca.

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The University of Saskatchewan has instated a number of health and safety requirements for faculty, staff and students in consideration of the COVID-19 pandemic. As of January 4, 2022, being **fully vaccinated** against COVID-19 is a condition of employment and proof of vaccination will be required. The University will consider accommodations requests for individuals in accordance with the requirements of *The Saskatchewan Human Rights Code, 2018*

The University believes equity, diversity, and inclusion strengthen the community and enhance excellence, innovation and creativity. We are dedicated to recruiting individuals who will enrich our work and learning environments. We are committed to providing accommodations to those with a disability or medical necessity. If you require an accommodation in order to participate in the recruitment process, please notify us and we will work together on the accommodation request. The University of Saskatchewan's main campus is situated on Treaty 6 Territory and the Homeland of the Métis. We pay our respects to the First Nations and Métis ancestors of this place and reaffirm our relationship with one another. Together, we are uplifting Indigenization to a place of prominence at the University of Saskatchewan.