Jumi Gogoi, PhD

Jumi is a postdoctoral researcher and applied data scientist specialising in predictive modeling and decision support for the agricultural and viticultural sector. Currently a Mitacs Accelerate Postdoctoral Fellow at the University of British Columbia in partnership with the BC Wine Grape Council, her work focuses on developing models for grapevine cold hardiness and disease risk to support grower decision-making across BC's wine growing regions. She brings a cross-disciplinary foundation spanning economics, business analytics, and a PhD from UBC's Institute for Resources, Environment and Sustainability, where she applied satellite remote sensing and machine and deep learning for crop yield prediction across the Canadian Prairies from county to field scale. Her experience spans agronomic modeling, geospatial data analysis, and financial risk consulting, enabling her to translate complex data into actionable insights for industry, policymakers, and researchers.

WORK EXPERIENCE

Postdoctoral Research Fellow (Mitacs Accelerate), May 2026 – Present
Faculty of Land and Food Systems, University of British Columbia
British Columbia Wine Grape Council, Canada

Postdoctoral Research Fellow, Sept 2024 – March 2026
Department of Earth and Environmental Sciences
University of Waterloo, Waterloo, Canada

Credit Risk Analyst, April 2024 – August 2024
Financial Engineering and Modeling (Financial Advisory)
Deloitte, Toronto, Canada

Research Affiliate, January 2020 – November 2021
Big Data and Predictive Analytics Branch
Agriculture and Agri-Food Canada, Government of Canada

EDUCATION

The University of British Columbia, Vancouver, British Columbia, Canada
Ph.D., Resources, Environment and Sustainability, 2024
Dissertation: "Crop yield estimation in the Canadian Prairies: Assessing the relative importance of scale, satellite and biophysical data"

University of Dallas, Dallas, Texas, USA
M. Sc., Business Analytics, *Beta Gamma Sigma*, 2018

University of Bath, Bath, UK
M. Sc., Economics, 2015

University of Delhi, Lady Shri Ram College for Women, New Delhi, India
B. Com (Hons), Commerce and Finance, Distinction in Accounting, 2013

PUBLICATIONS

Jumi Gogoi, Nathaniel K. Newlands, Zia Mehrabi, Nicholas C. Coops, and Navin Ramankutty. Assessing the Performance of Satellite-Based Models for Crop Yield Estimation in the Canadian Prairies. *Canadian Journal of Remote Sensing, 49(1), 2252926.* 2023

Working papers and technical reports available on request.

CONFERENCE PRESENTATIONS

1. Global Land Program International Summit 2024, Oaxaca, Mexico
The development of a field-scale crop yield prediction model using satellite and weather data

2. TIES Regional Conference (two invited sessions), Trent University, ON, 2023
- *Integration of multi-source within-season datasets for improving crop yield prediction using machine learning and deep learning approaches*
- *Using a planetary-scale computing platform for answering environmental science questions: Analyzing big geospatial datasets using Google Earth Engine*

HONORS AND AWARDS

President's Academic Excellence Initiative PhD Award, UBC, 2020 – 2024
Faculty of Science Graduate Award, UBC, 2019
Beta Gamma Sigma, 2018
Faculty of Social Sciences Graduate Scholarships, University of Bath, 2014
Dolat Rai M. Desai Prize for Leadership, University of Delhi, 2013

SKILL SET

Modeling & Analytics: Machine learning, deep learning, predictive modeling, statistical analysis
Tools & Platforms: R, Python, Google Earth Engine, R Shiny, Tableau
Data: Satellite remote sensing, geospatial analysis, agronomic and climate datasets
Communication: Technical writing, reporting, stakeholder engagement, data storytelling

CONTACT

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Citizenship: Canadian