



2023–2024

# Impact Report

GovLab —●— ai

powered by AltaML



# GovLab.ai

## Driving Public Sector Digital Advancement

*The AI Lab for Government (GovLab), co-founded by AltaML, the Government of Alberta, and Mitacs, serves as an innovation hub for public sector organizations.*

Harnessing public sector data, GovLab facilitates the transformation of government operations by connecting public sector innovators with the private sector to up-skill talent and create artificial intelligence (AI)-powered solutions. GovLab unites AltaML experts, government staff, post-secondary students, and graduates to solve real-world challenges together. By unlocking the value of data, GovLab identifies and tackles issues faced by the public sector, streamlining government service delivery, and ultimately enhancing citizens' quality of life.



17

projects completed

3

products in use

387

use case ideas generated

\$32.3M

potential value identified

55+

media features



*Alberta is leading the way in upskilling talent for an increasingly digital economy and through Mitacs' partnership with innovation leaders like GovLab, we're proud to play a part in the province's success. Now, in our second year of collaboration with GovLab, we can see even more the importance of supporting talent and providing opportunities for training and working with artificial intelligence. These projects have the potential to impact the future in Alberta and beyond. It's exciting to be a part of.*

**John Hepburn**

Chief Executive Officer  
Mitacs



# Foreward



**Chantal Ritcey**  
VP, Customer Solutions  
AltaML

I am incredibly proud to present our second GovLab Impact Report as we've had significant growth over the past year, highlighted by the addition of a new Tenant—Alberta Health Services Cancer Care Alberta—our first Tenant focused specifically on improving health outcomes for Albertans, and several meaningful projects.

This year marked a significant milestone as we hosted our first all-Tenant ideation session, bringing together every member of GovLab. This event demonstrates our continuous dedication to collaborative problem-solving, as we aim to uncover cross-Tenant use cases that will fuel exploration in the years ahead, ultimately driving positive societal benefit.

In the past few cohorts, notable applications emerged, such as tracking invasive species like wild boar, enhancing operational efficiencies through document classification, and gaining insights into labour market indicators. At the municipal level, our team completed a proof-of-concept on fleet and facilities maintenance, along with machine learning-driven defect identification in sanitation pipes, showcasing GovLab's tangible impact.

Our program and solutions have garnered global interest, with inquiries from jurisdictions worldwide and international media coverage for our Wildfire Prediction tool. With this momentum, we eagerly anticipate our third year of fostering innovation and collaboration at GovLab.



**Nicole Janssen**  
Co-Founder & Co-CEO  
AltaML

What a pleasure it is to witness GovLab flourishing. Since its inception in May 2022, it has grown to set the standard for creating solutions that embody ethical and responsible AI at its core, while also upskilling the next generation of tech talent.

The growth of GovLab, now encompassing Alberta Health Services Cancer Care Alberta alongside the Government of Alberta, the City of Edmonton, and the City of Calgary, is not only a testament to the program's value but also signifies a significant stride toward sustainable growth and prosperity. This strategic expansion speaks to the program's long-term viability and potential as it extends its reach within Canada.

As GovLab continues to position itself as one of the most innovative public-private partnerships, it opens up avenues for further collaboration and advancement as the opportunities to develop impactful AI-powered solutions are boundless. We are more determined than ever to continue this journey alongside our Partners, Tenants, and future Tenants.

Now is the time to shape the future of AI with innovative solutions that revolutionize the way we tackle pressing challenges and enhance the lives of all citizens.

# 2023–2024 Associates



**Nima Aminpour**  
Associate, Cohort 4 & 5  
GovLab

Nima Aminpour, a Machine Learning Developer at AltaML, participated in Cohorts 4 and 5 of GovLab.

Prior to securing a full-time role, Aminpour’s motivation to return for another cohort stemmed from a desire to apply his newfound knowledge and refined skills to the role.

*“I wanted to tackle new challenges and deepen my understanding under the expert guidance provided by AltaML.”*

Aminpour contributed to two projects: the City of Calgary’s Fleet Maintenance and the Government of Alberta’s Nowcasting Economic Indicators.

*“I had the opportunity to apply my expertise to influence the development of the project.”*

At the cohort’s end, Aminpour presented findings and solutions to the client, honing his communication to effectively convey complex solutions tailored to their needs.

*“My biggest takeaway from working in the public sector was realizing the strong interest in machine learning solutions and the vast opportunities available within the government for their application.”*

52

interns hired

11

second-term students

10

residents



**Mais Almouslli**  
Associate, Cohort 5  
GovLab

GovLab’s immersive program allowed Mais Almouslli, an Associate in Cohort 5, to engage in the public sector and observe its impact first-hand.

*“There’s room for experimentation and investigation which I previously did not expect from government work.”*

During her time, Almouslli served as a Business Solutions Consultant, contributing to the Information Management Document Classification and Nowcasting Economic Indicators projects for the Government of Alberta.

*“I learned directly that sometimes the problem we are trying to solve is not as clear and won’t be clarified unless we speak to a number of potential users.”*

By the four-month term’s end, Almouslli conducted user interviews, developed wireframes, and presented research findings to clients, bolstering her product skills and confidence. She anticipates this will ease her transition into a product position.

*“This level of hands-on experience is definitely not something that’s available to interns at every company. I still talk to team members, and their mentorship remains invaluable.”*

2,677

associate machine learning developer applications

567

associate business solutions consultant applications



# City of Calgary Fleet Maintenance

*The City of Calgary's fleet vehicle maintenance must optimize asset servicing efficiency by identifying the key factors contributing to fleet failures.*

In this proof-of-concept, fleet maintenance logs, vehicle sensor data, weather, and road condition data were thoroughly analyzed. The project successfully showcased the potential of leveraging machine learning to identify patterns and predict fleet failures.

Each year, a total of millions in work orders are completed, with a portion of funds allocated for unplanned maintenance. Therefore, data-driven decision-making for predictive maintenance can reduce costs, operational downtime, and increase salvage revenue—enabling interventions with preventive maintenance before failure.



## Reduce

**maintenance costs and  
operational downtime**

## Increase

**salvage revenue**

# City of Edmonton Facilities Maintenance

*The City of Edmonton sought to explore machine learning's potential in refining cost forecasting for new or existing buildings by understanding critical variables affecting facilities maintenance.*

By using historical work orders, building information, and maintenance plans, the project explored the feasibility of using machine learning to identify patterns in facilities maintenance.

Annually, 59,000 work orders are completed to maintain 9.3 million square feet in 200 city-owned flagship buildings, with a \$60 million annual budget. Enhanced precision of forecasting would mitigate the impact of unplanned costs for the city.



## Enhanced Precision

**of forecasting would mitigate the  
impact of unplanned costs**



# Government of Alberta Nowcasting Economic Indicators

*Government of Alberta economists produce reports on labour market metrics for internal and public use. Current sources suffer from notable time delays, necessitating the prediction of real-time indicator values.*

An externally facing self-service dashboard will provide forecasted economic indicators. This pilot will initially be deployed internally for economists to utilize.

The opportunities presented are near real-time labour market insights that empower policymakers, businesses, and researchers to make proactive decisions based on up-to-date information.

*To learn more about the impact GovLab is having, check out more case studies at*

**govlab.ai**

## Real-Time

labour market insights

## Empower

policymakers, businesses,  
and researchers to make  
proactive decisions

Alberta

*Our partnership with AltaML through GovLab has helped us cement Alberta's place as a dominant player in artificial intelligence and machine learning, and our position as an innovation hub. It is also helping us optimize government operations and apply AI-driven solutions to everyday challenges. Whether it is the Wildfire Prediction model, predicting enrolment growth in schools, or detecting grey trees, we are rising to the challenges that face Alberta. These AI-driven solutions also mean Alberta is creating solutions that can be exported globally, while we continue to deliver better, faster, and smarter services to all Albertans.*

**Nate Glubish**

Minister of Technology & Innovation  
Government of Alberta



*I am deeply grateful for the opportunity to have served as a technical Resident at GovLab. The professionalism, productivity, and helpfulness exhibited by the GovLab team left a lasting impression on me. Engaging in the exploration of diverse data sources and the application of machine learning models was both enriching and fulfilling.*

*It was a wonderful learning experience.*

**Shan Li**

Resident, Cohort 5  
GovLab



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Online

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