

WORK EXPERIENCE

Government of Alberta, Executive Council – Policy Coordination Office **Edmonton, AB**
Manager, Business Planning and Reporting Dec 2024 – Present

- **Highlight:** Oversee the development and implementation of data-driven systems to streamline mandate tracking, policy reporting, and decision-making support to the highest level of the provincial government.
- Facilitate cross-ministry collaboration by providing strategic guidance and training to enhance capacity for policy reporting and alignment with government priorities, ensuring transparent communication to senior decision-makers.

Policy Analyst May 2024 – Dec 2024

- **Highlight:** Enhanced policy capacity across the government by coordinating an 8-member cross-departmental team to develop new onboarding materials for policy professionals and transform the biennial policy conference.
- Led data cleaning of 6,000+ government records to reduce mandate status tracking time from weeks to minutes. This enables rapid progress updates for the Premier and Ministers offices, enhancing government accountability.

Imperial Oil/ExxonMobil, Kearn Oil Sands **Wood Buffalo, AB**
Extraction & Tailings Facilities Engineer; Fly-in/Fly-out 2-weeks on/2-weeks off Jan 2022 – Mar 2023

- **Highlight:** Led profitability initiatives to increase unit run length by 100% thereby reducing shutdown frequency and increasing unit utilization, via design changes and metallurgy upgrades.
- Led assessments of unit operation to determine root-cause issues and barriers to profitability, safety, and reliability. Coordinated teams of operators, technologists, and maintenance personnel to identify and address areas of inefficiency.

Imperial Oil/ExxonMobil, Strathcona Refinery **Edmonton, AB**
Distillation & Hydrotreating Process Engineer-in-Training Aug 2020 – Jan 2022

- **Highlight:** Oversaw performance optimization efforts for process units generating a cumulative P&L of \$200M annually and achieved record asphalt production by resolving bottlenecks and longstanding reliability challenges. Provide 24/7 on call technical support, acting as a focal point and escalation contact for high priority technical issues.
- Tapped by management to lead a \$52M Crude Unit improvement project and was recognized for consistently challenging existing practices to uncover process improvements.

Process Development Engineer-in-Training Jan 2019 – Jul 2020

- **Highlight:** Designed and oversaw the execution of a new injection facility in response to off-spec bunker fuel, bringing regulatory compliance standards in-line with expectations to prevent a potential \$9M in annual penalties.
- Led early-stage project planning and capital budgeting of crude and fluid catalytic cracking units margin projects to determine feasibility and profitability (NPV, DCF, IRR), ultimately delivering net benefits of \$21M per year.

Process Control Engineering Co-op Jan 2016 – Dec 2016

- **Highlight:** Identified vessels susceptible to brittle fracture and developed the logic for smart alarm implementation onto the Distributed Control Systems (DCS), to prevent cold safety events.
- Analyzed historical process data of fired equipment and developed correlations for statistical dynamic fuel gas clamps to mitigate furnace flooding/bogging risks.

EDUCATION

University of Calgary **Calgary, AB**
Master of Public Policy, GPA 4.0/4.0 2023 – 2024

- Capstone Project: Optimizing Transmission Infrastructure for Renewable Energy Integration in Alberta.
- Researched Pan-Canadian climate policy, energy transition pathways, and carbon pricing mechanisms.

University of Ottawa **Ottawa, ON**
BASc in Chemical Engineering w/Environmental Engineering Option, Summa Cum Laude, GPA 3.97/4.0 2013 – 2018

- Graduated with the highest academic standing in the Department of Chemical and Biological Engineering.
- Research assistantships at University of Ottawa (3 labs over 20 months) and Tianjin University (4 months) in China.

LEADERSHIP EXPERIENCE

Circular Economy Team Lead Nov 2023 - May 2024

- Led award-winning research on integrating CO₂ sequestration with geothermal energy and critical element recovery in Alberta, funded by Natural Sciences and Engineering Research Council of Canada (NSERC).

Imperial Oil (Edmonton) United Way Campaign Chair Jun 2021 – Nov 2021

- Provided leadership and direction to 15 committee members raising a total of \$338K, surpassing campaign goals.

Imperial Oil (Edmonton) United Way Campaign Co-Chair and Events Lead Jun 2020 – Dec 2020

- Spearheaded the ideation, planning and execution of 7 new virtual and physical events to raise a total of \$332K, surpassing campaign goals. Nominated for Outstanding Committee Member of the Year.

CoV-Informed (Risk and Strategy Consulting) Co-Founder May 2020 – Oct 2021

- Provided strategy consulting to small businesses by applying data analytics to provide insights. Selected as a top team amongst 1800+ competitors from 89 countries in MIT's Beat the Pandemic Hackathon.

Strathcona Working from Home Engagement Committee Lead Mar 2020 – Oct 2020

- Engaged 500+ employees through well-being initiatives, fostering connection and combating disengagement.

Khair4All (Poverty Alleviation Charity) Co-Founder and Director Aug 2011 – June 2017

- Administered a budget of \$150,000 and managed the daily activities of 50+ volunteers across fundraising and operations.

COMMUNITY INVOLVEMENT & EXTRACURRICULAR ACTIVITIES

- Awards Committee Member, Graduate Student Association, University of Calgary Jan 2024 – Mar 2024
- Mealtime Companion, Bethany Riverview Sept 2022 – Apr 2024
- Food Distribution Volunteer, MFNS Food Bank Mar 2022 – Apr 2024
- Volunteer Producer, 2023 APEGA's Nexus Conference June 2023
- Virtual Math & English Tutor, YYCGenerosity Apr 2021 – Nov 2021
- Responder, Edmonton Regional Search and Rescue Association Jan 2020 – Nov 2021
- Treasurer, TM4PM Toastmasters Club Oct 2019 – Sep 2020
- Patient Visitor & Pandemic Support Volunteer, Covenant Health Jul 2019 – Nov 2021
- Meal Prep Volunteer, Hope Mission Sept 2018 – Sept 2019
- President, Society of Environmental Engineering, Development, Management and Science Sep 2017 – May 2018
- Student-Athlete, University of Ottawa Novice Rower Sep 2017 – Mar 2018
- Research and Development Specialist, Enactus Canada Sep 2015 – May 2016
- Elected Engineering Faculty Council Member, University of Ottawa Sep 2015 – Apr 2016

PUBLICATIONS

- G. Fellows, **A. Elmeligy**, K. Koch, R. Mansell, D. Rama, I. Skendrovic "Energy Transitions Roundtable Proceedings", School of Public Policy Paper Series, August 2024.
- **Elmeligy**, P. Mehrani, and J. Thibault "Artificial Neural Networks as Metamodels for the Multi-Objective Optimization of Biobutanol Production", Applied Sciences (ISSN 2076-3417), June 2018.

CERTIFICATIONS

- Private Pilot License
- Restricted Operator Certificate – Aeronautical
- Standard First Aid, CPR Level "C" and AED
- Wilderness Advanced First Aid
- Mental Health First Aid
- Avalanche Skills Training 1
- Industrial Firefighting Fundamentals
- Citizens' Police Academy (Edmonton Police Service)
- Indigenous Relations Training Program
- ASME B31.3 Code Design Requirements
- Slurry Multi-Species PipeFlow Model

RELEVANT AWARDS

- 2024 Premier's Public Service Award
- 2024 NSERC's REDEVELOP Conference – 1st Place
- 2023 NSERC's CREATE Grant
- 2021 United Way Alberta Capital Region Employee Campaign Chair of The Year (Private Sector)
- 2019 & 2020 Imperial Oil Strathcona Excellence Award (People and Culture)
- 2018 Canada Hatch Plant Design Competition – 2nd Place out of 22 universities across Canada
- 2018 Canadian Society of Chemical Industry Award (Engineering)
- 2018 Faculty Plaque in Chemical Engineering
- 2017 International Experience Scholarship
- 2016 University of Ottawa Merit Scholarship
- 2015 – 2017 Chemical Engineering Professors' Scholarship
- 2014 Undergraduate Research Opportunity Program
- 2013 – 2018 University of Ottawa's Renewable Admission Scholarship
- 2013 – 2018 Dean's Honour List
- 2013 Dean's Merit Scholarship

HOBBIES & INTERESTS

Adventure Pursuits: Aviation, ultra marathons, mountaineering, cross-country skiing, biking, skydiving, scuba diving.

Sports: Flag football (uOttawa intramurals), rowing, rugby, football, soccer, weightlifting.

Creative Interests: Photography (landscape, architecture, portrait), blogging, vlogging, reading, chess.