

Gurrattan Kaur

Dartmouth, Nova Scotia, Canada • +1 (902) 790-9156 • Gurrattan.kaur@dal.ca

EDUCATION

Bachelor of Engineering in Chemical Engineering , <i>Dalhousie University, Nova Scotia</i>	Apr 2026
Diploma: Chemical Laboratory Technician , <i>Sheridan College, Ontario</i>	Dec 2015

SKILLS

- Quality and testing experience: 5+ years spanning oil and gas, cement manufacturing and beverage manufacturing industry with extensive ASTM/API/ISO testing
- Technical Skills: AutoCAD, Aspen HYSYS, Aspen Plus, COMSOL Multiphysics, Process Hazard Analysis, SAT, commissioning and qualification protocols, ASTM/ISO testing, SOP development
- Software and Tools: MS Office, LIMS, ClickUp, Figma
- Interpersonal Skills: Teamwork, communication, adaptability, leadership, accountability
- Core Competencies: Quality Assurance, process optimization, data analysis, troubleshooting, technical documentation, cross-functional communication, GMP compliance

WORK EXPERIENCE

Ultra Maritime Quality Engineer – Sonobuoy Systems	Dartmouth, Nova Scotia Apr 2026 – Present
• Coordinate Material Review Boards and Non-Conformance Review Panels by reviewing quality issues, supporting disposition decisions, and tracking corrective actions to completion • Lead project quality assurance activities, including in-process audits, to ensure work meets Ultra’s Quality Management System and project requirements • Maintain project quality metrics and workload forecasts to help track non-conformances, audit findings, and overall project quality performance • Support design reviews, Certificate of Conformance releases, and customer quality issue resolution by reviewing documentation and confirming requirements are met • Collaborate with engineering, production, management, project management, planning, purchasing, and supply chain teams to support process troubleshooting, resource coordination, and quality and operational improvements.	
Lafarge (Now Amrize) Quality Control Technician	Brookfield, Nova Scotia Aug 2024 – Apr 2025
• Served as Laboratory Information Management System (LIMS) specialist, customizing backend workflow to automate analysis plans, calculations, configured rules and notifications, improving accuracy, consistency, and reporting efficiency • Performed daily chemical and physical testing of raw mix, clinker, and cement including GUL, Tercem and Class H with tests including XRF, XRD, Blaine fineness, setting time, compressive strength and loss on ignition, ensuring compliance with API/ASTM standards and preventing off-spec production • Optimized data integration between XRF/XRD instruments and plant quality software by configuring scripts and real-time dashboards, reducing reporting time and improving real-time decision making • Generated quality parameter sheets by analyzing process data to support operators in maintaining stable raw mix and discharge targets	
Biovectra (Now Agilent) Process Engineering Intern	Windsor, Nova Scotia Jan 2023 – Aug 2023
• Coordinated installation of a magnetic mixer assembly to replace a confined-space agitator; managed project tasks, progress tracking, and cross-functional meetings (Engineering, Process Development, Maintenance, Manufacturing, Contractors), ensuring on-schedule completion	

Gurrattan Kaur

Dartmouth, Nova Scotia, Canada • +1 (902) 790-9156 • Gurrattan.kaur@dal.ca

- Performed spare parts analysis and developed preventive maintenance schedules for pumps, sensors, relief devices, and valves, reducing downtime and aligning asset management with GMP compliance requirements
- Conducted system and component impact assessments and process hazard analysis for for GMP pharmaceutical systems including CIP skids, dilution skids, mixing tanks, and 10,000 L agitated vessels by collaborating with cross-functional teams, leading to reduction in potential hazards identified
- Executed detailed commissioning plans and qualification protocols including SAT for the 10,000 L buffer vessel and single-use buffer management system, resulting in a successful execution of test functions with a 98% accuracy rate
- Reviewed and updated piping and instrumentation drawings (PIDS) for complex systems, facility and equipment drawings in AutoCAD to ensure accuracy and compliance with industry standards

Breathe Biomedical **Chemical Engineering Intern**

Moncton, New Brunswick
May 2022 – Aug 2022

- Designed and implemented controlled experiments to evaluate sorbent tube performance, applying statistical analysis, improving reliability
- Developed and executed Python automation tool for optical calculations, reducing processing time and increasing accuracy
- Conducted root cause analysis of sorbent tube malfunctions, creating corrective solutions that accelerated project timelines

Metamaterials Inc. **Assistant Engineer**

Dartmouth, Nova Scotia
Sep 2021 - Dec 2021

- Executed the installation and commissioning for reactor system, conducting thorough performance tests to ensure optimal functionality and efficiency
- Executed the installation and calibration of a spin processor and configured the software to create customized recipes, resulting in an increase in coating uniformity and consistency
- Developed detailed SOPs for the spin coating process, thermoforming, and curvature height measurement process, resulting in an increase in operational efficiency within the engineering department
- Prepared comprehensive process documentation including detailed measurements, data analysis, results, and recommendations for future improvements, and provided regular updates to the engineering team on project progress, ensuring alignment and transparency throughout the process

Amspec Services Canada Ltd. **Petroleum Laboratory Technician**

Dartmouth, Nova Scotia
Sep 2016 - Sep 2020

- Conducted testing and analysis of jet fuel, diesel, gasoline, crude oil, bunker oil and biodiesel samples for key clients including Irving Oil, Exxon Mobil, and Wilsons
- Utilized rigorous testing and analytical methodologies in accordance with ASTM standards to perform testing and analysis crucial to quality control including but not limited to detailed hydrocarbon analysis by gas chromatography (GC), octane number rating, hydrocarbon type analysis by fluorescent indicator absorption (FIA), sulfur analysis by X-ray fluorescence and ultraviolet (UV) fluorescence spectrometry
- Documented and analyzed data from lab worksheets and COAs to identify trends and areas for improvement and investigated atypical lab results and discrepancies by conducting root cause analyses, leading to the implementation of new protocols that reduced errors
- Managed the inventory for chemicals, solvents and additives by following the company safety policy and safety data sheets (SDS)
- Monitored QC charts and conducted daily and weekly quality control testing, leading to an increase in equipment reliability

Gurrattan Kaur

Dartmouth, Nova Scotia, Canada • +1 (902) 790-9156 • Gurrattan.kaur@dal.ca

LEADERSHIP EXPERIENCE

2025 Canadian Engineering Competition VP Communications

Halifax, Nova Scotia
Jun 2024 - Jan 2025

- Directed communications strategy for Canada's largest undergraduate engineering competition, engaging 200 top students nationwide through delegate packages, social media, promotional videos, web content to boost visibility and engagement
- Oversaw external communications and outreach, including responding to inquiries, coordinating school visits for high school students, and organizing a public career fair immediately following the competition
- Collaborated with Logistics, Sponsorship, Translation and Technical teams to align communications and ensure coherent messaging; provided regular progress updates to organizing committee to support effective event execution