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Lafarge Canada
c/o Lafarge Website

Maxwell Norris
3847 Brighton Dr NW
Calgary AB, T2L 1G7
587-578-5263
maxwellnorris33@gmail.com

Re: Aggregates Engineer-in-Training

My name is Maxwell Norris, I am a Mechanical and Digital Engineering student graduating from the University of Calgary in May 2024. During my previous internship for TC Energy, I excelled at balancing deliverables for multiple sub-teams, quickly learning and implementing new technologies, and creating innovative software automations to improve workplace efficiency. During my extracurriculars, I excelled in a variety of team environments due to my strong communication and people skills. I am passionate about bringing the expertise I have gained during my internship, along with my digital and mechanical engineering education, together to solve complex engineering problems. I am interested in working at Lafarge due to their global leadership in sustainable development of Cement, Concrete and Aggregates.

My minor in digital engineering has taught me how to be a problem solver. Its classes have been a great way for me to learn coding in python and machine learning. Its classes have reinforced in me how to properly break down any type of problem into smaller parts, determine the unknowns, research and implement possible solutions. During my internship for TC Energy I applied these skills by creating a suite of programs to extract data from handwritten forms using machine learning and to automate request processes. I strongly believe leveraging these digital tools and concepts will be key to helping future engineers solve problems. This background gives me the ability to identify and implement software solutions in processes that will become more valuable with increased digitization.

My capstone design project furthered my engineering abilities in both digital and mechanical engineering. In my role I am assisting in creating a control system that will work to keep a RC airplane in straight and level flight, which required me to merge much of my digital and mechanical skills in a way not needed for an ordinary class. The experience of using Matlab to create code that will affect how a real RC plane will fly has been the most enjoyable part of my engineering degree and got me excited about the larger interplay software can have on mechanical engineering problems and decisions. I look forward to applying these skills as I start my career as an EIT.

Based on the description of the Aggregates Engineer in Training you need a highly motivated candidate, who can quickly master new softwares and softwares to make informed decisions when working with other departments. I am confident that with my mix of people skills and technical literacy I will be an asset to the areas of operations, sales, quality control and project management. I want to work for Lafarge and be a part of its culture of passion, innovation and improvement.

Thank you for your consideration. I look forward to discussing my future role as an EIT at Lafarge with your further during an interview.

Kind Regards,

Maxwell Norris

MAXWELL NORRIS

ENGINEER IN TRAINING | INNOVATIVE PROBLEM SOLVER
587-578-5263 | Calgary, AB, Canada | maxwellnorris33@gmail.com

Objective

To obtain a challenging Engineer in Training position where I can bring together mechanical and digital engineering to problems in a collaborative environment.

Technical Skills

- Solidworks
- VBA and Microsoft Excel
- Python, MATLAB, Simulink
- Machine Learning in python
- Microsoft Power Platform
- CSS, HTML, Java

People Skills

- Communication skills
- Time Management
- Collaborative team member
- Teaching Skills
- Technologically literate
- A2 level Spanish

Experience

TC Energy
Engineering Support Team Intern | May 2022 – August 2023

- Improved multiple intake process automations for the engineering support team made using the Microsoft Power Platform, eliminating on average 3 erroneous entries per query, saving time for both the user and receiver.
- Created an AI using the Microsoft power platform to extract data from PDFs. My software populated a database that enables the process engineering team to leverage data previously inaccessible in PDFs to achieve safety and compliance with less human error.
- Reviewed engineering documentation including drawings and material test reports (MTR) for the materials team and inspection test plans (ITP) for the coating team. I discovered an estimated 30+ errors that prevented the procurement or usage of materials not compatible with current industry code or the pipeline design.

Digital Engineering Students' Society (DESS)
VP External | May 2022 - Ongoing

- Organized corporate sponsored events over a short time frame with input from multiple stakeholders within the DESS council and the sponsoring party. My events gave our students the opportunity to learn about industry and network with potential employers.
- Raised funds and obtained corporate sponsorships. My efforts increased our society's profile and established good working relationships with sponsors in industry.

U of C Great Northern Concrete Toboggan Race Team (UofC GNCTR)
Competition team member | September 2021 – January 2022

- Researched and tested different mechanical designs and concrete mixes. My designs were incorporated into the final toboggan which won the 2022 competition.

Schulich Ignite
Mentor | October 2020 – December 2021

- Taught python to high school students over zoom using my communication skills and expertise to explain complex topics to new audiences and get them excited about pursuing careers in STEM.

Education

University of Calgary
BSc in Mechanical Engineering | September 2019 – April 2024

- Minor in Digital Engineering where I learned about machine learning, IoT, Software development
- Earned a current cumulative GPA of 3.65/4
- UAV Dynamics and Control Law Synthesis Capstone Project where I was responsible for plane construction and control system design.

Interests

Skiing | Backpacking | Hiking | Cycling | History | Reading | Movies | 3D Printing | Camping