

Caleb Mueller

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Ambitious engineering student with expertise in CAD design, prototyping, and environmental assessments. Skilled in applying research to real-world problems using advanced technologies. Eager to transition to professional work, developing innovative solutions for environmental challenges. Combines strong technical abilities with a passion for making tangible impacts through applied engineering principles.

EXPERIENCE

SPARK LAB

Technician

Prince George, BC

November 2024 – Present

- Management of a 3D printing queue, ensuring models were print-ready, and edited for printability
- Repair and maintenance of four FDM 3D printers, including a Bambu X1C and Prusa XL

UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Student Researcher

Prince George, BC

September 2023 - August 2024

- 3D modeling and thermal simulation of artificial bat roosts in Fusion and SimScale
- Impact of climate change on water balance and drought in agricultural watersheds in British Columbia
- Historical and projected climate data processing using Python, R-Studio, and ArcGIS Pro

CANADA REVENUE AGENCY

Administrative Support Clerk

Calgary, AB

May 2022 - August 2022

- Prepared tax correspondence and notices for mailing to taxpayers
- Reset and troubleshooted call center agent smartphones

Administrative Assistant

May 2021- August 2021

- Entered employee schedules, leave, and vacation balances in an HR database
- Maintained spreadsheets for managers and prepared reports

STRATEGIC NATURAL RESOURCE CONSULTANTS

Assistant Development Technician

Prince George, BC

May 2019 - August 2019

- Conducted boundary and road layout, and riparian assessments
- Navigated blocks to identify and delineate buffer zones around streams

EDUCATION

University of Northern British Columbia

BASC Environmental Engineering

Prince George, BC

September 2020 – May 2025

TECHNICAL SKILLS

- CAD and Simulation: SolidWorks, Fusion, Simscales
- Data Analysis: Python, Excel, GIS
- FDM 3D Printing

CERTIFICATIONS

- SolidWorks CAD Design Professional
- IBM Data Science Specialization

ID: C-Z86YEG5TLA

ID: 7KUJ2G6G6EJL

VOLUNTEERING

UNBC School of Engineering

Maintenance

Prince George, BC

October 2024 – Present

- Repair and maintenance of the School of Engineering's FDM 3D printer (Prusa I3 MKS3+)

Over the Edge Student Newspaper

Administrative Assistant

Prince George, BC

July 2024 – Present

- Digitized bank and tax documents
- Created an Excel database for OTE articles scanned by UNBC's Northern BC Archives

Spark Lab

Prototype Developer

Prince George, BC

January 2024 – Present

- Engaged with researchers to understand their needs and challenges in laboratory/field environments.
- Designed customized research solutions using CAD and FDM 3D printing
- Built, repaired, and maintained FDM 3D printers

AARCS Safe Haven

Veterinarian Assistant

Calgary, AB

September 2019 – December 2019

- Cleaned veterinarian surgical equipment, kennels
- Monitored animals before and after procedures

AWARDS

NSERC Undergraduate Student Research Award

May 2024

Natural Sciences and Engineering Research Council of Canada

- Natural Sciences and Engineering Research Council of Canada Undergraduate Student Research Award, awarded for outstanding research contributions in the natural sciences and engineering fields. The award recognizes exceptional research skills, creativity, and potential for future contributions to the field.

Undergraduate Research Experience Award

January 2024

University of Northern British Columbia

- The Undergraduate Research Experience (URE) Award at UNBC is a competitive program designed to involve undergraduate students in scholarly research. Recipients collaborate with faculty on research projects, developing critical thinking, inquiry, and research skills. The program enhances students' understanding of knowledge creation processes, improves their project design and execution abilities, and strengthens their written, oral, and visual communication skills.

MEDIA LINKS

UNBC Environmental Engineering Ad: https://www.instagram.com/p/DBAF3oTs20l/?utm_source=ig_web_copy_link

Spark Lab CKPG Feature (time: 13:10): <https://ckpgtoday.ca/2024/06/24/ckpg-today-for-june-24-2024/>

Prince George Public Library Repair Café: <https://www.princegeorgecitizen.com/local-news/eco-living-community-holds-a-repair-cafe-at-prince-george-public-library-for-small-appliances-and-textiles-saturday-9338448>