

Lucas Miller, BEng.

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Education

**Bachelor of Engineering, Architectural Conservation and Sustainability Engineering,
Co-op Option**

September 2022 - Present

Carleton University, Ottawa, ON

- Graduated: April 2026, 8.83/12 (B)
- General In-Course Scholarships 2022-2023

Availability: Immediately

Technical Skills

- Experienced in Revit, Fusion360, LBNL THERM, Window, Python
- Developed models to capture thermal bridging across wall segments using THERM and LBNL Window.
- Self-taught in repairing and analyzing mechanical and electrical systems using a hands-on approach.
- Experience in construction with proficiency in operating a wide range of power tools.

Certifications

- G Driver's License.
- Youth Sustainability Champion 2022, awarded by the City of Kingston.
- Level 1 Canadian Ski Instructors' Alliance.
- Level 1 Canadian Ski Coaches' Federation.

Communication Skills

- Excellent communication skills honed through customer service at Food Basics as a cashier and camp counsellor for over three years.
- Led and participated in numerous group projects to drive collaboration and clear communication to achieve project goals.

Applied Projects

Capstone Design Project

September 2025 - April 2026

Sustainable and Energy-Efficient Agricultural Facility Design Project

- Designed the lighting and cooling systems in Python for the heat recovery system.
- Utilized LBNL THERM for various wall designs to optimize them for the climate.
- Created a feasibility study for the construction of the facility with three tiers for various options to be considered.

Group Member

September - December 2024

Mixed Residential Building

- Utilized Revit to design the HVAC system for the building.
- Created various detailed section view drawings.
- Worked with a team to effectively and promptly complete all tasks.

Extra-Curricular Activities

Troitsky Competition 2026

October 2025 - February 2026

- Led a team of 6 members to an international engineering competition to construct a popsicle stick and floss bridge, withstanding the fourth-highest load of 1850kg.
- Tested bridge cable materials using the INSTRON 5582, finding an alternative with 148% increased strength and a 75% decrease in extension.
- Contacted and acquired an independent sponsorship with GUM to supply the dental floss needed for the bridge.
- Designed the bridge in Fusion360.
- Operated a bandsaw and a scrollsaw for precise cutting and shaping of materials during project construction.
- Assembled the bridge cooperatively with the team under a high-stress competition environment.
- Planned, designed, built, and coded a personalized audio output device that would play pre-recorded files randomly when a button was pressed for the team's theme.

Work Experience

Contract Administrator

May - August 2025

Infrastructure & Water Services Department, Ottawa, ON

- Compiled daily diaries of the completed work for road resurfacing projects in Excel.
- Ensured that the completed work met the contract specifications.
- Collected material tickets and took photos throughout the day for documentation.
- Coordinated with the contractors to ensure they kept on schedule.

Landscaper

May - August 2024

Kingston Public Works, Kingston, ON

- Demonstrated a strong work ethic, entrusted to handle the city truck and trailer.
- Provided exceptional landscaping services as part of my groundskeeping team.

Camp Counsellor

July - August 2023

Kingston SteamWorks, Kingston, ON

- Planned engineering activities for the campers.
- Created a supportive and encouraging environment to help the campers learn and grow their skills through different activities and games throughout the week.

Deck Specialist

June - August 2022

The Deck Doctors, Kingston, ON

- Worked independently, treating decks or fences to remove old stains, neutralizing surfaces, staining, and repairing them efficiently.
- Ensured quality assurance and customer satisfaction through hard work and dedication.

General Labourer

June - August 2021

Payne's Pools, Kingston, ON

- Collaborated as part of a team to construct ground pools fully.
- Developed skills using concrete, such as formwork and mixing.
- Ensured tasks were completed on time and effectively.