

Duncan McRae

Engineering Student

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SUMMARY OF QUALIFICATIONS

- Fourth year student in Physics and Electrical Engineering at the University of Ottawa.
- Adept in multiple CAD software through projects and coursework.
- Experienced in several coding languages including Python, C/C#, HTML, VBA, MATLAB.
- Excellent practical problem-solving skills from experience in construction and agriculture.

EDUCATION

Honours BSc Physics and BASc Electrical Engineering (CO-OP)

University of Ottawa, Ottawa, ON. / 2021-Present

- CGPA 7.7 / 10
- Deans Honours list 2022, 2023

Coursework:

Physics:

Waves and Optics, Mechanics,
Thermodynamics, Quantum Mechanics

Electrical engineering:

Electronics, Computer Architecture,
Electricity and Magnetism, Signals and
Systems, Communication Systems

SKILLS

Computer Skills:

- SOLIDWORKS
- Onshape
- Multisim
- Microsoft Office
- Coding languages:
Python, C, MATLAB, HTML, VBA

Technical skills:

- Circuit analysis and design
- Equipment maintenance and repair
- Machinery operation
- Metalworking
- Woodworking
- Welding
- Soldering

Soft skills:

- Teamwork and collaboration
- Verbal and written communication
- Problem-solving
- Autonomy

PROJECTS

Engineers Without Borders

University of Ottawa, Ottawa, ON. / Jan. - Mar. 2023

- Worked with fellow engineering students to design new systems for Mazi Ltd. in Kenya using SOLIDWORKS.

Second Year Engineering Design Project

University of Ottawa, Ottawa, ON. / Jan. – Apr. 2022

- Worked with team of engineering students to design accessibility part for the Tetra Society of North America.

First Year Engineering Design Project

University of Ottawa, Ottawa, ON. / Sept. – Dec. 2021

- Designed and programmed applications for Zafin using various programming languages and platforms.

EXPERIENCE

BluMetric Environmental Inc. CO-OP / Carp, ON. / Jan. – Aug. 2025

- Disassembled and assembled water filtration units.
- Created documentation for assembly of various water filtration units.

Farm Hand / Charlottengro Farms Inc. / Williamstown, ON. / 2020 – 2023

- Operated, maintained, and repaired equipment.
- Installed new equipment when necessary.

Farm Hand / Heidi Farms Inc. / Bainsville, ON. / 2016 – 2023

- Performed multiple roles in milking operations during early and late hours.
- Operated equipment during harvest season.

Labourer / Dave Lawson Woodworking Ltd. / Jasper, AB. / Sept. – Dec. 2020

- Operated construction equipment and power tools.
- Applied construction techniques including reinforced concrete, framing, insulation, and roofing.