

Doriane Ouédraogo

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 GitHub

 Gatineau, Québec

Profile

Mechanical Engineering and Computing Technology student with experience in mechanical design, system modeling, data analysis, and technical documentation. Interested in engineering projects involving mechanical systems, simulation, manufacturing processes, and process improvement. Comfortable working in team-based and multidisciplinary environments.

Project experience

Dynamic Modeling of an Active Air-Suspension Race Car

(SolidWorks / Notion / CNC Milling / Welding / Lathe)

University of Ottawa

(September 2025 – December 2025)

- Contributed to modeling and simulation of an active air-suspension system using MATLAB.
- Assisted with control implementation, system analysis, and SolidWorks CAD support.

Paralympic Tricycle Differential System

(SolidWorks / Notion / CNC Milling / Welding / Lathe)

University of Ottawa

(September 2025 – December 2025)

- Contributed to economic analysis and technical documentation for an adaptive tricycle differential system in a client-facing academic project.
- Developed cost analyses and feasibility documentation for potential large-scale production; project received an **Honorable Mention in the Accessibility Category (Design Day)**.

Adaptive Racing Bicycle for Youth Athletes

(SolidWorks / Trello / Miro)

University of Ottawa

(January 2025 – April 2025)

- Supported drivetrain design and system integration for a youth racing bicycle concept.
- Completed the final SolidWorks assembly and assisted with performance-related design decisions.

“Forces & Structures” Learning Device

(Arduino / OnShape / 3D printing / laser cutting / Trello)

University of Ottawa

(September 2024 – December 2024)

- Contributed to the development of an Arduino-based educational device for structural laboratory activities.
- Worked on Arduino programming, sensor integration, and physical prototyping.

Bridge truss

(AutoCAD / SAP2000 / Report Writing)

University of Ottawa

(January 2024 – April 2024)

- Designed, fabricated, and tested a bridge truss structure.
- Validated performance through load testing up to 1,374 N and technical reporting.

Education

B.Sc.A. in Mechanical Engineering & Computing Technology- University of Ottawa

2022 – present

Relevant Coursework: Mechanics, Thermodynamics, Fluid Mechanics, Structural Analysis, Control Systems, CAD, Electrical Systems, Project Management

Technical skills

Design & Simulation: SolidWorks, AutoCAD, SAP2000

Data & Automation: Python, MATLAB, VBA, Arduino

Manufacturing & Tools: CNC machining, lathe, 3D printing, laser cutting, calibration, instrumentation

Process & Quality: Lean methods, statistical analysis, process improvement, quality control

Project Tools: Trello, Jira, Notion, Excel (macros), Microsoft Access

Soft Skills: Initiative, teamwork, analytical thinking, communication

Work experience

Mentor & Team Lead – Technovation

Ottawa, Ontario

(January 2026 – present)

- Expected to mentor a junior Technovation team beginning January 2026, supporting hands-on learning and collaboration through STEM activities.

Tutor – Tutorat Pro

Gatineau, Québec

(May 2025 – present)

- Assisted students in math and science, improving communication and pedagogy skills.

Security Volunteer – Marathon de Longueuil

Gatineau, Québec

(May 2025 – present)

- Contributed to large-scale event logistics, safety coordination, and crowd management through strong teamwork and organizational skills.

Club member:

- NSBE, BSLA, Crochet Club, Cooking Club, Avid Readers Club