Nour Abdelrahman

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SUMMARY

Waterdown, ON - L8B 1Y1, Canada

Motivated Mechatronics Engineering student at the University of Waterloo with hands-on experience in CAD (SolidWorks, AutoCAD), design for manufacturing, and quality assurance. Skilled in C++, Python, and technical drawing standards, including ECR processes and PDM systems. Trilingual and adaptable, with a strong drive for innovation and continuous improvement.

PROJECTS

• SketchBot: 10/2024 - 11/2024

Tools: [C++, PPT, Word, Excel, RobotC]

- Designed and coded a robot capable of creating outlines for engineering sketches using C++ and Robot C.
- Enabled engineering to create outlines 3x faster and more accurate than by drawing by hand.
- Successfully presented and communicated progress to course instructors.
- Authored a comprehensive project report with analysis and actionable recommendations for future improvements.

• V6 Engine Assembly and Simulation:

01/2025 - 03/2025

Tools: [SolidWorks]

- Designed and modeled a complete V6 engine assembly in SolidWorks, including all individual components such as pistons, crankshaft, camshafts, and valves.
- Applied mechanical constraints using advanced mates to accurately simulate real-world engine motion and timing.

EDUCATION

• University of Waterloo

09/2024 - 06/2029

Bachelor of Applied Science, Mechatronics Engineering

Waterloo, Canada

o GPA: 3.70/4.00

École Secondaire Catholique Sainte-Trinité

06/2024

Secondary Education

Oakville, Canada

- o Ontario Secondary School Diploma (Bilingual)
- o GPA: 4.00/4.00

EXPERIENCE

01/2025 - 05/2025

Waterdown, Canada

- Created over **300** precise engineering drawings and assemblies in SolidWorks and AutoCAD, using SolidWorks PDM and SAP while following strict ECR and GD&T standards.
- Performed torque, tolerance, and force analysis calculations, along with FEA simulations, to inform design decisions, demonstrating strong problem-solving skills and attention to detail.
- Collaborated with senior engineers across departments on complex projects, contributing ideas and presenting technical work clearly during team meetings.
- Developed a solid understanding of weldments, sheet metal fabrication, and material selection, applying adaptability and a continuous learning mindset to real-world manufacturing challenges.

• Waterloo Formula Electric Design Team[)

01/2025 - Present

Electrical Team Member

Waterloo, Canada

Designed and assembled custom PCBs integrated into the team's car, supporting vehicle systems and performance.

• The Home Depot Store Support Center [

06/2024 - 09/2024

Quality Technician Intern

Bolton, Canada

- Conducted quality inspections on a variety of products, ensuring compliance with company standards.
- Helped uncover production problems in order to reduce overall defect rates.
- Sampled products to conduct in-depth measurements and tests.

SKILLS

- Programming Languages and Softwares: C++, Python, Excel, SAP, SolidWorks PDM, MS Office, Tortoise SVN
- Modelling: SolidWorks (CSWA), AutoCAD, Altium Designer, 3D-Printing
- · Soft Skills: Leadership, Organization, Time Management, Communication, Attention to Detail, Critical Thinking

ADDITIONAL INFORMATION

Languages: English (Fluent), French (Fluent), Arabic (Fluent)

Interests: Rock climbing, Mountain Biking, Skiing, Camping, Aerospace, Boxing, Motor sports