

Eric Doan

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EDUCATION

University of Waterloo

Bachelor of Applied Science in Nanotechnology Engineering

Expected Apr. 2029

Waterloo, ON

- **GPA: 3.9/4.0**
- **Honors:** President's Scholarship of Distinction, Term Distinction

WORK EXPERIENCE

Undergraduate Research Assistant

Waterloo Microfluidics Laboratory

Feb. 2026 - Present

Waterloo, ON

- Fabricated MEMS-based biosensors on microfluidic chips using standard nanofabrication techniques such as soft lithography.
- Designed experimental components using CAD tools, high-resolution 3D printing, and laser cutting.
- Conducted multi-physics simulations in COMSOL to model microfluidic flow and inform device design.
- Characterized sensor performance and microfluidic structures using VNA testing and 3D optical microscopy.
- Developed SOPs for fabrication processes and equipment to improve workflow consistency and reproducibility.

Curriculum Coordinator & Chemistry Technical Lead

University of Waterloo NanoRobotics Group

Jan. 2025 – Apr. 2026

Waterloo, ON

- Organized and lead workshops and wet lab sessions for junior students, introducing nanotechnology concepts.
- Surveyed academic and industry literature on nanomaterials, robotics mechanisms, and sensors.
- Collaborating within a multidisciplinary team integrating chemical synthesis and nanorobotics engineering.
- Led specialized wet lab sessions on the synthesis and characterization of carbon quantum dots.

Chemistry Member

Sept. 2025 – Present

- Conducting laboratory work on silver nanoparticle conductive inks for printed circuit applications.
- Completed lab and safety certifications and reviewed recent literature to support experimental design.

Project Coordinator

Lex Metal Fabricators Ltd.

May 2025 – Aug. 2025

Mississauga, ON

- Developed introductory proficiency in CAD software, including SolidWorks, Tekla, and AutoCAD.
- Coordinated and monitored project schedules, deliverables, and timelines using Microsoft Office.
- Operated CNC laser cutting machine and nesting software, communicated machine requirements to drafters.

Office Associate

Jul. 2023 – Aug. 2024

- Provided administrative support, managed customer inquiries, and handled data entry tasks.
- Recorded and processed transactions using accounting software.
 - Used QuickBooks and Microsoft Excel for data entry.
 - Processed payroll and managed inventory for 20+ employees.
- Redesigned the company website to improve usability and aesthetics, enhancing the user experience.

PROJECTS & TECHNICAL EXPERIENCE

Triboelectric Nanogenerator (TENG)

- Collaborated in a team of six to design and prototype a wind-powered triboelectric nanogenerator.
- Selected and proposed specific materials and structural designs to optimize electric potential generation.

CERTIFICATIONS & SKILLS

- **Skills:** AutoCAD, SolidWorks, 3D Printing, MATLAB, Python, Java, COMSOL, QuickBooks, Microsoft Suite.
- **Awards:** Avogadro Exam Outstanding Achievement (2023), Chem 13 News Exam Award of Distinction (2024)

- **Certifications:** WHMIS, First Aid & CPR Level C/AED, AutoCAD: Essentials