

Trevor R. Winchester BAsc (Mech. Eng.) EIT

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Profile Recent University of Windsor Mechanical Engineering (Co-Op) graduate. Seeking meaningful employment in a role that will use and develop my engineering skills. Fueled by a passion to learn and use engineering tools and principles to solve real problems.

Skills & Core Competencies

• Problem Solving • Delivery of Results • Time Management • Project Management • Task Definition and Organization • Communicating with Integrity • Team Leadership • Self-starter who Adapts to and Embraces Change • Ready to Learn and Grow •

Mechanical Engineering: Machine Design, Thermodynamics, Fluid Mechanics, Heat Transfer | Knowledge of HVAC, Piping Design, Molding | Lean Six Sigma Methodologies | System Control | PID Controllers | Failure analysis (FMEA) | Drafting (GD&T) | Data Analysis | Statistics

Materials Engineering: Properties and Manufacturing of Engineering Materials | Thermochemistry, Fracture Mechanics, Material Testing | Statistical Analysis | Wear and Surface Coatings

Software Experience: FEM/FEA | CAD | Revit | MATLAB & Simulink | CATIA | C++ | VBA | MS Office (Word, PowerPoint, Excel)

Education

Bachelor of Applied Science Honours – Mech. Eng. (Co-Op) (With Distinction) 2018-2022

- University of Windsor, Windsor, Ontario
- Added Specialization in Materials Engineering
- Capstone Project: Design and Simulation of Composite Body Armor Using Metallic Foam
- Deans List: Winter 2020, Winter 2022, Summer 2022

Work Experience

Office of Open Learning, University of Windsor

Promotes online, open, and hybrid learning and teaching approaches and opportunities.

Senior Online Learning Assistant (Work Term 3) Sept - Dec 2021

Online Learning Assistant (Work Term 2) Jan - Apr 2021

Online Learning Assistant (Work Term 1) May - Aug 2020

- Project manager and team leader for multiple department projects, providing guidance for up to 12 co-op students working remotely.
- Working independently and as part of teams: designed, organized, and executed numerous projects.
- Manager for projects undertaken by a University and College Consortium: facilitated the design of the Consortium's *Ontario Extend Liberated Learner Project*.
- Proactively led proposal discussions that resulted in successful projects, including co-authoring a successful government grant proposal.
- Delivered multiple presentations to 60+ University faculty members and workshops to 600+ students.
- Designed and delivered online course optimizations for 4 engineering professors.

North Mississauga Soccer Club

Paid Position supporting the Club's soccer development goals

Technical Soccer Coach

May - Aug 2019

- Led improvement in the quality of soccer skills for youth players aged 3 to 12.
- Mediated conflicts and facilitated dispute resolutions among players and/or parents.

Volunteer Experience

Undergraduate Research Assistant, University of Windsor

July-Aug 2022

- Prepared material samples in a laboratory for scanning electron microscopy.
- Facilitated an experiment for a graduate student.

Music Council Leader, Erindale Secondary School

2017-2018

- Planned, organized, and facilitated daily events in the music program.
- Supported the music director in the organization of concerts and festivals.

Leader in Training I and II, City of Mississauga

Summer 2016

- Leader for summer camp for children aged 3-12, ensuring a safe and fun environment.
- Worked in a team to support the City's summer camps.

Awards/Certifications

- **Engineer-In-Training (EIT)**, Professional Engineers Ontario January 2023
- **Yellow Belt Lean Six Sigma**, SSGI December 2022
- **WHMIS 2015**, University of Windsor February 2022
- **Impact Award**, University of Windsor Summer 2020
 - For personal contributions in helping students and faculty members transition to remote education
- **First Aid**, Canadian Red Cross Spring 2019
- **Principal's Award for Student Leadership**, Erindale Secondary School June 2018

Publications

- **T. Winchester, E. Kustra, I. Cormier, A. Cherniaev**, "Ballistic Performance of Integral Body Armour with Closed-Cell Aluminum Foam: A Numerical Study", Faculty of Engineering, University of Windsor. Manuscript Submitted.