Thomas Watson

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Education

Dalhousie University — Halifax, NS
Bachelor of Mechanical Engineering, Minor in Computer Science — *Sept. 2021 – Apr. 2027*

Experience

Cybertruck GA Equipment Engineering Intern — Sept 2025 – Present
Tesla — *Austin, TX*

- Led mechanical design, robotics, and PLC logic for two new seat structure assembly cells; sole designer/programmer of rejection assembly, saving hundreds of thousands annually in Cybertruck development lead time.
- Main contact for seat assembly cells; designed/implemented efficient robotic fittings, controls, and end effectors using Siemens NX, SolidWorks, and Catia.

Mechanical Design Engineering Intern — May 2025 – Aug. 2025
Lockheed Martin — *Dartmouth, NS*

- Led topside design initiatives, implementing 9 new functional equipment placements based on antenna radio frequencies, thermal considerations and mechanical constraints.
- Led topside mechanical design assembly integration for confidential system as main point of contact for 4 vendors.
- Identified discrepancies and led the redevelopment of a company-wide new line-of-sight analysis procedure using SolidWorks for the CSC program, trained employees, and improved process accuracy by over 8%.

Computational Fluid Dynamics (CFD) Intern — May 2024 – Aug. 2024
Lockheed Martin — *Dartmouth, NS*

- Developed and validated a calculation method for engine exhaust mass flow rates/temperatures, worked with vendors to develop proper idle engine power distribution for RANS/LES simulations (thermal and aerodynamic).
- Worked closely with the Electromagnetic team validating near and far field antenna coupling analyses.
- Developed, meshed, and analyzed CSC ship model iterations for CFD using ANSYS Fluent and SolidWorks.

Aerospace Engineering and Logistics Intern — Jan. 2025 – Apr. 2025
RTX (Pratt and Whitney) — *Halifax, NS*

- Collaborated with PW800 production line and automated various procedures using VBA, Power BI and Python.
- Built 13 complex Visual Basic macros from scratch, cutting company data refresh time by 8 hours/week.

Projects/Extracurricular Leadership

Video Game Console System | *Matlab/Arduino with 3D Printed Controller* — May 2025

- Developed a front to back end 2-D video game system using an Arduino Uno (Analog/Digital Input) and Matlab, governed by RK4 differential equations. 3-D printed a custom designed ergonomic controller assembly.

Quantitative Risk Management App | *Dalhousie Investment Society (DALIS)* — Sep. 2024 – April 2025

- Built a ground-up application that calculates individual group and society-wide YTD PNL's in Python using Pandas, Matplotlib, Tkinter and Bloomberg's Python API.
- Introduced applied mathematical hedging and decision making to the society. Developed Monte Carlo simulations and stock/industry corelation matrices using python (Matplotlib, Numpy and Pandas).

Head of Governance and Trading | *Dalhousie Blockchain Society* — Dec. 2024 – Present

- Leading team governance initiatives, managing and presenting club votes on various L1/L2 Web 3.0 projects.
- Obtained an all expenses paid grant to attend Jupiter Exchange's annual conference in Istanbul, Turkey.

Volunteer Experience — Dec 2020 – Present

- Dal Engineering vs Commerce Charity Hockey Game – Raising over $60 000 for the Canadian Cancer Society.
- Summer youth hockey development camp coach.
- Romero house Saint John food shelter volunteer.

Technical Skills

Engineering: NX, Catia, Python, SolidWorks, VBA, VLSI design, Simulink, AutoCAD, MATLAB, Java, C++
Tools: Tableau, Power BI, DOORS, SAP, Visual Basic, SQL, Confluence, Jira, Bluebeam, Git
Simulation: ANSYS Fluent, COMSOL Multiphysics, ShipEDF (3D Electromagnetic Modeling), OpenFOAM
Relevant Courses: Heat Transfer, Fluid Mechanics, Systems, Materials 1-3, FEA, Applied ODE's, Machine Design 1-2