

Taylor Sartwell

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EDUCATION

Wentworth Institute of Technology, Boston, MA
Bachelor of Science: *Mechanical Engineering*, Minor in *Manufacturing*

Graduation: Aug. 2023
GPA: 3.54 / 4.0

"HYDRO HERO" - MECHANICAL CAPSTONE PROJECT

- Developed, assembled, and tested an aquatic robot to combat environmental pollution
- Collaborated in a team of five mechanical engineering students over 8 months
- Modeled parts in SolidWorks and created system for collection method
- 3D printed pieces, rapid prototyped, and tested functions in dry and wet environments
- Maintained project budget, parts list, and receipts for reimbursement
- Showcased and demonstrated final working prototype in August 2023

CERTIFICATIONS

SME Certified Manufacturing Technologist (CMfgT), SME Additive Manufacturing Fundamentals Certification (CAM-F), SolidWorks Certified Associate in Mechanical Design (CSWA), SolidWorks Certified Associate in Simulations (CSWA-S)

TECHNICAL SKILLS

SolidWorks, Finite Element Analysis, Fusion 360, Autodesk Inventor, Autodesk Revit, AutoCAD, CNC Milling and Lathe, 3D Printing, Rapid Prototyping, Microsoft Office (Word, Excel, PowerPoint), Leadership, Teamwork, Problem Solving

WORK EXPERIENCE

MBTA, Boston, MA — Project Controls Capital Program Support Co-op Sept. – Dec. 2022

- Assisted in the development budgets, cash flow projections, and estimate at completion (EAC) projections for Commuter Rail projects at the Massachusetts Bay Transportation Authority
- Undergone on-site examinations of MBTA stations and tunnels
- Attended meetings to communicate with multiple teams and consultants under various fields and departments
- Provided hands-on support and planning for future office location of 150 MBTA employees

Consulting Engineering Services, Norwood, MA — Mechanical Engineering Intern Jan. – Apr. 2022

- Drafted HVAC, Plumbing, and Fire Protection systems in AutoCAD and Revit
 - Designed for residential and commercial projects using engineering formulas and skills for ensuring safety and technical accuracy
 - Identified and selected equipment from appropriate manufacturing catalogs for specific applications
 - Performed on-site investigations and surveys for selected projects prior to design
 - Coordinated with other mechanical and electrical engineers to ensure no system interferences
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ADDITIONAL EXPERIENCE

Mathematics Teaching Assistant & Tutor at Wentworth Jan. – Dec. 2021

- Tutored students in-person for Differential Equations and virtually for Calculus courses
- Reviewed work from small groups of students and helped with questions of the topic
- Collaborated with professors and other teaching assistants to implement strategies to keep students engaged

Event Planner of Saint Johnsbury Academy FIRST Robotics Team Sept. 2017 - May 2019

- Analyzed game elements and implemented strategic design for the team's robot
 - Brainstormed, modeled in CAD, assembled, and prepared team robot prior to competition
 - Competed with team in FRC 2018's Power Up and 2019's Destination: Deep Space game events
 - Aided team in the 2019 New England District South East Mass Event win
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ACADEMIC CLUBS

Northeastern and Wentworth Robotics Club Member Since Sept. 2019

- Develop designs with small teams for robotics projects like the Robotic Arm
- Disassembled and assembled projects using hand tools and machines

Treasurer of American Society of Mechanical Engineers Mar. 2021 - Jun. 2023

- Manage club budget with executive board for various projects, tours, and other club events

President of Cru Wentworth Jun. 2021 - Aug. 2023

- Lead Christian group and collaborate with leaders from other Boston colleges
- Organize effective recruiting campaign and communication methods to bolster membership