Ethan Rowe

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Education

Wentworth Institute of Technology, Boston, Massachusetts Expected Graduation August 2022
Bachelor of Science in Interdisciplinary Engineering Concentration in Mechanical Engineering
Minor in Manufacturing Engineering
Minor in Physics

- Relevant Coursework: Additive Manufacturing, Computer Aided Design/Computer Aided Manufacturing, Engineering Thermodynamics, Engineering Fluid Mechanics, Engineering Graphics, Calculus 3, Differential Equations, Linear Algebra, Material Science

Simsbury High School, Simsbury, Connecticut Graduated June 2018

Skills

- Advanced: Engineering Design Process, MS PowerPoint, MS Excel
- Above Average: Blueprint Reading, 3-Axis Milling Machines, Casting, Material Testing (Instron), SolidWorks/Autodesk, Laser cutting machines, design for additive manufacturing, 3D printer troubleshooting
- Intermediate: G Code, Java Programming, MATLAB, Python

Employment History

Woods Hole Oceanographic Institute, Woods Hole, Massachusetts
Applied Ocean Physics and Engineering COOP (ACOMMS) September 2021 – January 2022

- Designed an experiment to test the corrosion factors of different fastening solutions. A jig was constructed to photograph the test samples at regular intervals. Jig was constructed using parts that were additive manufactured using PolyJet, SLA, and FDM printing methods
- Certified a docking concept for the REMUS vehicle. A working prototype was constructed using a laser cutter and additive manufactured parts. A test plan was developed using the expected forces.
- Facilitated the manufacturing process of new components by creating process drawings, ensuring readability of engineering drawings and serving as the point of contact for manufacturers.

Fusion Optix, Woburn, Massachusetts
Product Engineering Intern January 2021 – May 2021

- Utilized 3D printers/CO2 lasers to rapidly prototype LED packages and innovate on customer requests. Rapidly iterated to quickly meet specifications using a design for manufacturing mindset.
- Solicited quotes from numerous suppliers to establish product timelines and improve upon product quality and profitability.
- Improvised solutions to problems using existing hardware to meet impending deadlines.

Mitsubishi Power Aero, (Formerly PW Power Systems) Glastonbury, Connecticut
Procurement and Parts Analysis Engineering Intern May 2020 – August 2020

- Developed tracking tools to compare historical quote data with newly received quotes from multiple manufacturers.
- Identified long-lead-time parts in terms of manufacturability, tooling, and material cost in order to prioritize part procurement.

Manufacturing/Industrial Engineering Intern May 2019 – August 2019

- Facilitated the industrialization of one of the product lines, by analyzing quality requirements from drawings, and Quality Assurance documents
- Created process improvement documentation to better support operators in the assembly, maintenance, or tracking of products.
- Analyzed purchasing data and inventory to prepare reports highlighting risks to delivery dates to critical, long-lead parts.

Projects

- Development of underwater manipulator for Underwater robot. Used Solidworks to prototype manipulator. Major focus was on ease of use as well as waterproofing the electrical components. Used CamWorks to run milling operations for the final parts. (2019-Present)
- Designed modular Chassis system for Underwater robot. Worked with an interdisciplinary team on SolidWorks to design a modular chassis. Used CNC machines to cut aluminum, and acrylic. (2019-2020)
- Modeled, then fabricated an electric go kart. Raced for the first time in the electrathon race at Limerock park. (2018)
- Participated in First Robotics on team 3464, first year helped construct robot that made it to the world championships. Second year lead the team as one of the captains, helped fundraise $7,000 during the season. (2018)

Memberships

- IEEE- Institute of Electrical and Electronics Engineering (2018-Present)