

# Cole Rabe

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<b>EDUCATION</b>	<b>Worcester Polytechnic Institute (WPI)</b> , Worcester, MA Bachelor of Science in Mechanical Engineering, GPA 3.77/4 Minor in Electrical & Computer Engineering with RF engineering concentration  Relevant Courses: Manufacturing Science, Prototyping and Computer-Controlled Machining, Stress Analysis, Computer Aided Design, Materials Science, Static Systems, Dynamic Systems, Thermodynamics, Fluid Mechanics, Heat Transfer, RF Circuit Design, Continuous-Time Signal and System Analysis, Microelectronic Circuits I, Microelectronic Circuits II, Thermo-fluid Application and Design	May '24
<b>AWARDS</b>	<b>Best Project in Modeling And Analysis Of Mechatronic Systems</b> , WPI	March '23
<b>CERTIFICATIONS</b>	<b>Associate - Mechanical Design</b> , Dassault Systèmes <b>Aerial Lift Operator</b> , OSHA	Sept '21 April '21 - Sept '25
<b>PROJECTS</b>	<b>Major Qualifying Project: Avoiding Ice Deformation in Fixed Docks</b> , WPI <ul style="list-style-type: none"><li>Led the modeling and simulation of alternative systems in Creo Parametric to mitigate ice deformation forces</li><li>Constructed testing setups, collected real-world test data, and validated results using MATLAB</li><li>Presented findings to industry judges, demonstrating alignment between simulated and real-world data</li></ul> <b>Interactive Qualifying Project: Reducing Traffic Congestion</b> , Nantucket <ul style="list-style-type: none"><li>Collaborated with team members to identify and develop solutions for traffic congestion</li><li>Engaged with residents and business owners to gather insights and developed digital tools for data collection</li><li>Analyzed parking and congestion data, identified problem areas, and proposed feasible solutions</li><li>Delivered comprehensive findings through a report and a televised presentation to town officials and citizens</li></ul>	Jan '23 – Aug '23  Oct '22 – Dec '22
<b>SKILLS</b>	<b>Software:</b> SOLIDWORKS   Audacity   Creo Parametric   Microsoft Word, Excel, PowerPoint   Visual Studio   Arduino IDE   Altium Designer   MATLAB <b>Languages:</b> Python   C/C++   HTML   CSS <b>Training:</b> Lab safety   Wood and metal shop training	
<b>EXPERIENCE</b>	<b>Technical Manager</b> , WPI, Worcester, MA <ul style="list-style-type: none"><li>Led the management of theatre systems, infrastructure, and tools ensuring optimal performance</li><li>Directed and mentored users of the space, providing guidance and support to enhance their experience</li><li>Implemented and enforced safety protocols, serving as a liaison between staff and students to ensure a secure and collaborative environment</li></ul> <b>Repair Technician/Installer</b> , The Computer Cafe, Arlington, MA <ul style="list-style-type: none"><li>Worked with businesses to install networking solutions into their spaces</li><li>Spoke with customers to troubleshoot and repair laptops and desktops</li></ul> <b>Scenic Carpenter</b> , The Hanover Theatre & Conservatory, Worcester, MA <ul style="list-style-type: none"><li>Collaborated with a small team to construct the set for the Conservatory's summer '23 performance of <i>Fiddler on the Roof</i></li></ul> <b>Team Member</b> , Boda Borg Boston, Malden, MA <ul style="list-style-type: none"><li>Interacted with guests to handle waivers, payment, and reservations</li><li>Worked with guests to figure out the solution to rooms and develop foundational problem solving concepts</li><li>Resolved issues with the guests that were reported by the guests</li></ul> <b>STEAM Instructor</b> , Zaniac STEM Center, Woburn, MA <ul style="list-style-type: none"><li>Taught K-8 STEAM concepts such as programming, robotics, circuits, and 3D printing</li><li>Engaged with parents to ensure their child is understanding the class concepts</li><li>Developed and adapted course material to reinforce foundational concepts</li></ul>	Feb '21 – May '24  July '17 – May '24  June '23  Sept '19 – Feb '20  Feb '17 – Mar '18
<b>PATENTS</b>	<b>Rabe, Cole. 2023. Water Dock Ice Tolerance 63/460,831, filed 4/21/2023. Patent pending.</b>	