

# Brandon Gares

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<b>EDUCATION</b>	<b>Rensselaer Polytechnic Institute (RPI)</b> , Troy, New York M.E. Aeronautical Engineering (May 2022) B.S. Aeronautical Engineering/Economics Dual Major   GPA 3.98/4.0 (May 2021)
<b>SKILLS</b>	<b>Computer</b> Siemens NX; MATLAB; Microsoft Word; Microsoft Office (Including Excel); CORENA Studio <b>Practical</b> Machining using lathes, mills, and drill presses; Public Speaking; Technical Writing; Wind/Water Tunnel Experience
<b>RELEVANT WORK EXPERIENCE</b>	<b>American Airlines</b> Base Support Engineering Co-op (June 2021 – August 2021) <ul style="list-style-type: none"><li>Supported maintenance heavy maintenance base for A320 Family, Boeing B737 and Boeing B787 family aircraft comprised of 5 hangars with 15 docks.</li><li>Designed various repairs for damage to aircraft structure, including doublers, splices, straps, angles, and freeze plugs.</li><li>Performed repair analyses to ensure that repairs fully restored the structural integrity of the aircraft.</li></ul> <b>American Airlines</b> Fleet Engineering Co-Op (January 2020 – August 2020) <ul style="list-style-type: none"><li>Maintained largest global fleet of A320 Family aircraft comprised of 400+ planes.</li><li>Authored technical documentation such as Engineering Orders and Engineering Authorizations detailing maintenance procedures for aforementioned aircraft.</li><li>Primary contributor to \$1.1 million project to inspect and modify critical aircraft structure.</li><li>Revised technical documents including IPC, SRM, and AMM to ensure cross-fleet consistency.</li></ul>
<b>STUDIES</b>	<b>Project Experience</b> Air Vehicle Design Course <ul style="list-style-type: none"><li>Performed the system level design of a passenger-cargo commercial hybrid aircraft. Personal contributions included concept generation and design of aerodynamic surfaces including the wing, horizontal tail, vertical tail, and control surfaces.</li></ul> Inventor's Studio Course <ul style="list-style-type: none"><li>Performed the structural analysis as part of a team designing a vertical modular greenhouse capable of reducing CO2 emissions as well as growing food and filtering water.</li></ul> <b>Laboratory Experience</b> Center for Flow Physics and Control (CeFPaC) <ul style="list-style-type: none"><li>Conduct experiments utilizing a water tunnel to analyze flow separation over swept and tapered wings at low Reynolds Numbers (<math>Re &lt; 1000</math>) and high angles of attack.</li></ul> Aerospace Structures and Controls Laboratory <ul style="list-style-type: none"><li>Analyzed various aspects of structures in aircraft and spacecraft, including vibrations, gyrodynamic, elastic instability, and composites.</li></ul>
<b>LEADERSHIP</b>	<b>Rugby Team Captain</b> (November 2018 – Present) <ul style="list-style-type: none"><li>Elected captain of the RPI Men's Rugby Club. Responsible for leading the team during practices and games, representing the team both on and off the field, and working with team leaders to maximize team success.</li></ul> <b>VP of RPI Rugby Club</b> (November 2019 – November 2020) <ul style="list-style-type: none"><li>Run the everyday operations of the rugby club, including managing several minor positions, organizing practice times, and de-escalating conflict within the club.</li></ul> <b>VP of Communications for NY Kappa Tau Chapter of Pi Lambda Phi</b> (November 2018 – November 2019) <ul style="list-style-type: none"><li>Organized two formal events for approximately 75 people while staying under a \$2,500 budget. Responsible for booking a venue, organizing transportation, and planning a menu for food and beverages.</li><li>Collaborated with President to implement an alumni newsletter outlining current events within the chapter.</li></ul> <b>Rugby Treasurer</b> (November 2018 – November 2019) <ul style="list-style-type: none"><li>Created and implemented a \$30,000 annual budget for the RPI Men's and Women's Rugby Clubs.</li><li>Cooperated with team leaders and coaches to prioritize both short and long term financial needs including paying league dues and purchasing new equipment to replace the outdated equipment.</li></ul>
<b>ACTIVITIES</b>	<b>Member of Pi Lambda Phi Fraternity</b> (April 2018 – Present)
<b>HONORS</b>	<b>RPI Men's Rugby</b> (August 2017 – Present) <b>Dean's List</b> (Fall 2017 -Present) <b>Sigma Gamma Tau Aeronautical Engineering Honor Society</b> (April 2018 – Present)