

# Charlie Nitschelm

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<b>Objective:</b>	Find an internship or research position pertaining to aerospace engineering for the summer of 2019	
<b>Education:</b>	<b>University of New Hampshire – College of Engineering and Physical Sciences</b> GPA: <b>3.81/4.0</b>   Honors Program   B.S, Mechanical Engineering   Physics Minor	<b>Aug. 2016 – May 2020, anticipated</b>
<b>Tech Skills:</b>	Solidworks   Python   MATLAB   VSM   GD&T   Machining   Welding   Autodesk Fusion 360   CNC Milling   Water Jet	
<b>Experience:</b>	<b>TURBOCAM International</b> <i>Manufacturing Engineering Intern</i> <ul style="list-style-type: none"><li>Creating and optimizing 5-axis mill tool paths using batch with feeds, speeds, approaches and retracts</li><li>Using a Zoller Smile to precisely obtain tool measurement readings after an operation</li><li>Conducting an analysis on tool degradation with different tool coatings for Inconel 718 to determine if the extended tool life would outweigh the costs of tool coating implementation</li></ul>	<b>September 2018 – present</b>
	<b>National Institute of Standards and Technology (NIST)</b> <i>Researcher: Mechanical Performance</i> <ul style="list-style-type: none"><li>Conducted a study on Inconel 625 in both tension and compression and stress triaxiality on axisymmetric 1018 steel</li><li>Performed low strain rate tests on an MTS</li><li>Designed and performed all experiments on a pulse-heated Split Hopkinson (Kolsky) Bar for high strain rates</li><li>Compiled all recorded data on experiments and used Python to perform calculations to output useful information</li></ul>	<b>May 2018 – August 2018</b>
	<b>UNH Mechanical Engineering</b> <i>Undergraduate Researcher</i> <ul style="list-style-type: none"><li>Designed and modeled axisymmetric 1018 steel specimens using Solidworks and Abaqus to study stress triaxiality</li><li>Manufactured 30 Inconel 625 specimens in various rolling directions to study the effects of heating rates</li><li>Ensured that the timeline of work would end so testing could occur at NIST during the summer of 2018</li></ul>	<b>January 2018 – May 2018</b>
	<b>UNH Institute for the Study of Earth, Oceans, and Space</b> <i>Researcher: Data Analysis</i> <ul style="list-style-type: none"><li>Used Python to conduct a systematic search of the COMPTEL data for evidence of polarization from solar flares</li><li>Organized necessary data sets and developed tools that will be needed for analysis</li><li>Using the COMPTEL field-of-view, determined the number of source and background counts for each solar flare</li><li>Performed simulations to estimate the polarization sensitivity for that event</li><li>Created a systematic analysis of all gamma ray bursts that took place within the COMPTEL field-of-view</li></ul>	<b>May 2017 – August 2017</b>
<b>Relevant Orgs:</b>	<b>UNH Students for the Exploration and Development of Space</b> <i>Co-Founder, CTO</i> <ul style="list-style-type: none"><li>Managing the Hybrid Rocket program to design, manufacture and build a gimbal-controlled hybrid engine using HTPB and Nitrous Oxide</li><li>Attended SpaceVision 2018 with 16 team members in San Diego, California to network with other SEDS members</li><li>Lead overall managerial duties including running all meetings and overseeing the goals of the organization</li><li>Head the model rocketry building techniques program to master the manufacturing expertise needed</li><li>Managed all tech leads to create a high-altitude rocket to participate in the University Student Rocketry Competition</li><li>Created an in-depth flight simulation using MATLAB to optimize our rocket's design to achieve maximum height</li></ul>	<b>Mar. 2017 – present</b>
<b>Other Skills:</b>	Project Management   Organizational Leadership   Creativity and Problem-Solving   Communication	